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Maker's Village

Reviving Material Consciousness

Request for Approval of Thesis Research
Project Book Presented to:

Bronne Dytoc

and to the
Faculty of the Department of Architecture
College of Architecture and Construction Management

by

Stephanie Balga

In partial fulfillment of the requirements for the Degree

Bachelor of Architecture

Kennesaw State University
Marietta, Georgia

May 1, 2020

Maker's Village

Reviving material consciousness



"Skill is a trained practice; modern technology is abused when it deprives its users precisely of that repetitive, concrete, hands-on training. When the head and the hand are separated, the result is mental impairment" (p.52)

-Richard Sennett, The Craftsman

DEDICATION

This thesis is dedicated to

Mama and Pappy

I don't think words will ever be able to describe how grateful I am for you guys. Thank you for seeing me through the insanity.

My siblings: Matthew, Emily, and Timothy

Each of you helped me through this process in your own unique ways. You guys are my real ones.

Studio mates

I could not have made it through without the laughter, joy, guidance, and many late night food runs.

Esmeralda and Indie

Thank you for all your joy and comfort that you have offered me through the difficult times.

Gramps Balga and Gram Gram Goertz

Although you weren't able to be here to see it all the way through, you were each with me through the process in my mind, spirit, and heart.

I love and miss you both.

Thank you all for believing that I can do it and for showing me that most things are possible with enough love and support.

ACKNOWLEDGEMENTS

This thesis would not be possible without the counsel of my thesis advisor and other faculty members

Professor Bronne Dytoc

Thank you for your dedication and passion throughout the process. Thank you for helping me find my passion through my thesis.
I would not be here without you.

Professor Elizabeth Martin

Thank you for your help and laughter through thesis and other classes.

Professor Arief Setiawan

Thank you for giving me feedback, guidance, and laughter when I was lost and confused.

The rest of the Architecture department

Thank you for keeping me on my toes and helping me learn through the many years.

ABSTRACT

Taking from Richard Sennett's book, *The Craftsman*, "Skill is a trained practice; modern technology is abused when it deprives its users precisely of that repetitive, concrete, hands-on training. When the head and the hand are separated, the result is mental impairment" (p.52) This separation that Richard Sennett is talking about is the disconnect that our modern society has found due to the large amounts of mass production, social media, and technology abuse. In order to find this connection again, humans need to become more aware of their surroundings. This reconnection can occur through what is called material consciousness. This is a type of mindfulness that occurs when a person is connecting with the materials that they are becoming craftsman of.

The definition of a craftsman is not specific to artistic standards. A craftsman can range from being an architect, to a parent. From a doctor, to a computer engineer. What separates a person from doing their job and a craftsman is the attention one acquires to detail through years of work with the community or the material at the forefront of their motivation. A craftsman becomes mindful and is able to put their best effort forward due to this instilled nature to be connected with their material.

This thesis is meant to create a village that allows all generations to reconnect with craft. Looking into collaborative design options is important because this style of learning gives an opportunity for people to be taught positive craft habits along with encouraging material consciousness. Material consciousness gives the opportunity to connect and create a community through mindfulness to their surroundings. This kind of community is meant to connect the makers, tools, and materials through learning new crafts or perfecting old. With the focus being on reconnecting the head and hand, this thesis will push the idea of material consciousness forward by designing the structures with the same mindset. Pushing the materials of the structures to new innovative ways will get people to be inspired through fresh eyes of desire to achieve the same levels of skill, or in a distasteful frustration of wanting to do it better.

THESIS STATEMENT

In our modern society, the head and hand are separated, which according to Sennett is causing impairment. This problem can be fixed through the creation of a community of makers that has the ability to provide the correct tools to regrow this relationship between the head and hand.

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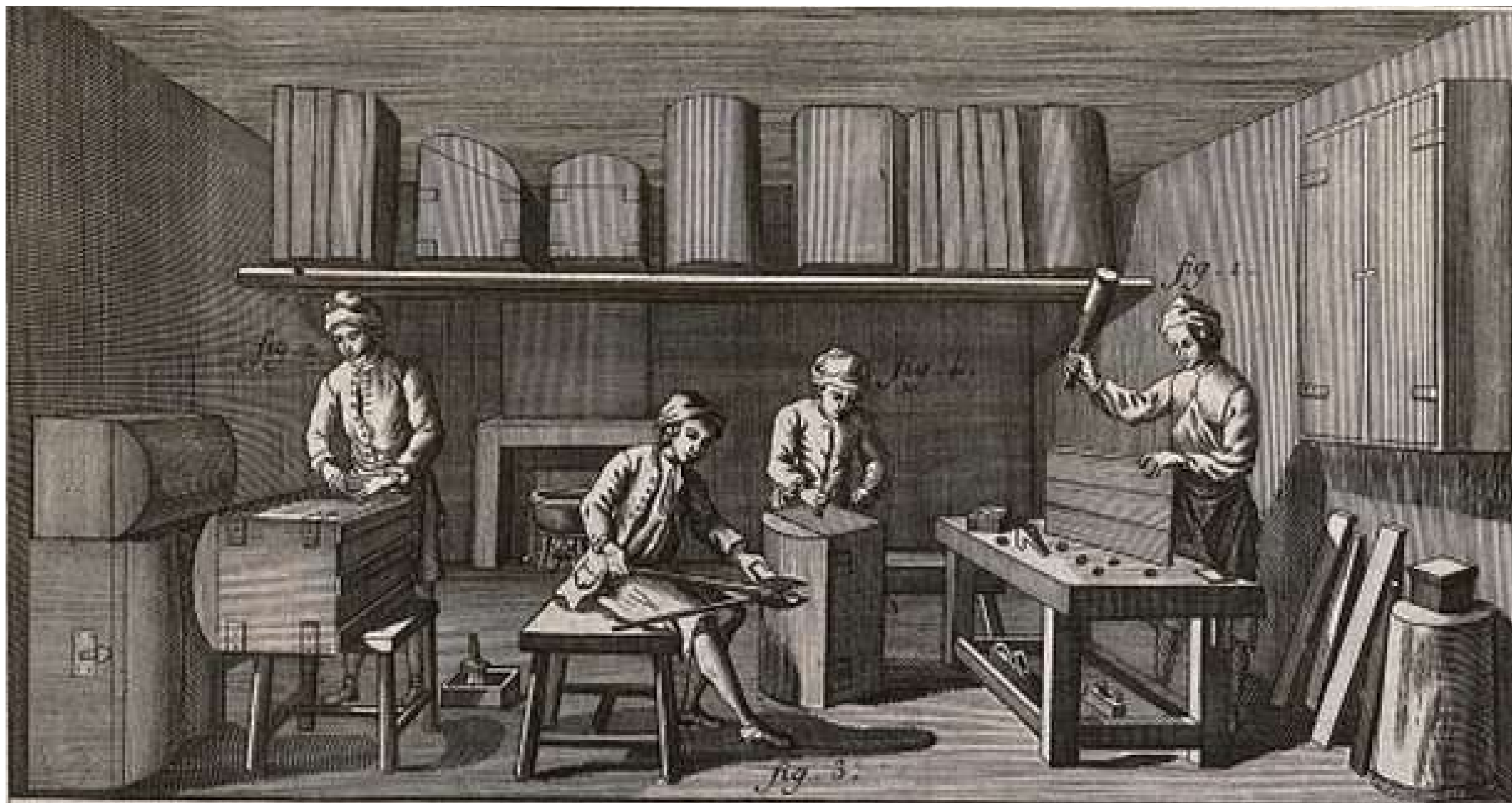


Figure 1
Chestmaker's Workshop

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

1.1 HYPOTHESIS

INTRODUCTION

In today's society, it is known that people do not have much of an attention span. They are not aware of what is happening in their surroundings. There is a solution that helps a person become more aware along with creating and supporting their community. People, when they are designing and crafting, are connecting with their surroundings. They are becoming aware with their senses and through this, they are creating through mindfulness.

Crafting is not a definition that is easily defined. The act of crafting does not have boundaries and therefore does not limit who can become a craftsman. The definition of craft is important to understand because it does have boundaries on what is considered a craft. Simply put, craft can be considered a skill that is learned through time.

Furthermore, craft is important to our society. It is more integrated in our daily lives than most people believe. According to Dennis Diderot from his Encyclopedia, "The poet, the philosopher, the orator, the minister, the warrior, the hero would all be nude, and lack bread without this craftsman, the object of their cruel scorn." (p 85) Diderot was a French philosopher who during the 1760s would spend his days in the workshops of these craftsman and learn the tricks to their trades. He found that there was a certain level of knowledge that was not easily transferred through verbalizing or writing. He believed that craftsmen were deprived of the recognition they so deserved. People saw them not as artisans, but as workers that were looked down on and not given respect for their intellect. He found that by etching plates of what he had seen through the days best suited how people could learn about the beauty behind crafting. This then created a series of plates that he would publish through time. People found that they were captivated by the images and wanted to find out more information. He published 3,000-4,000 plates that were dedicated to the many different craftsman and their trades.

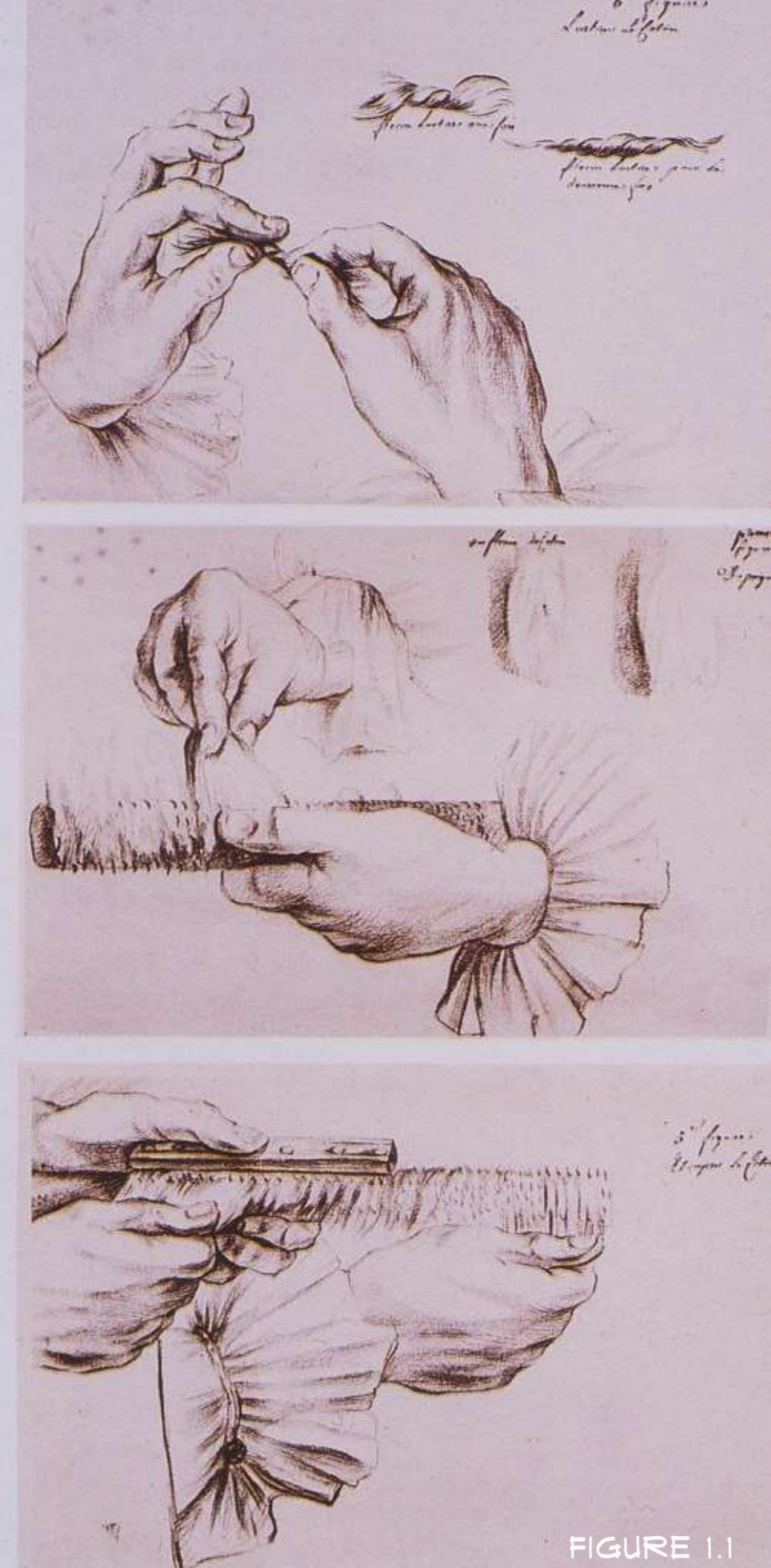


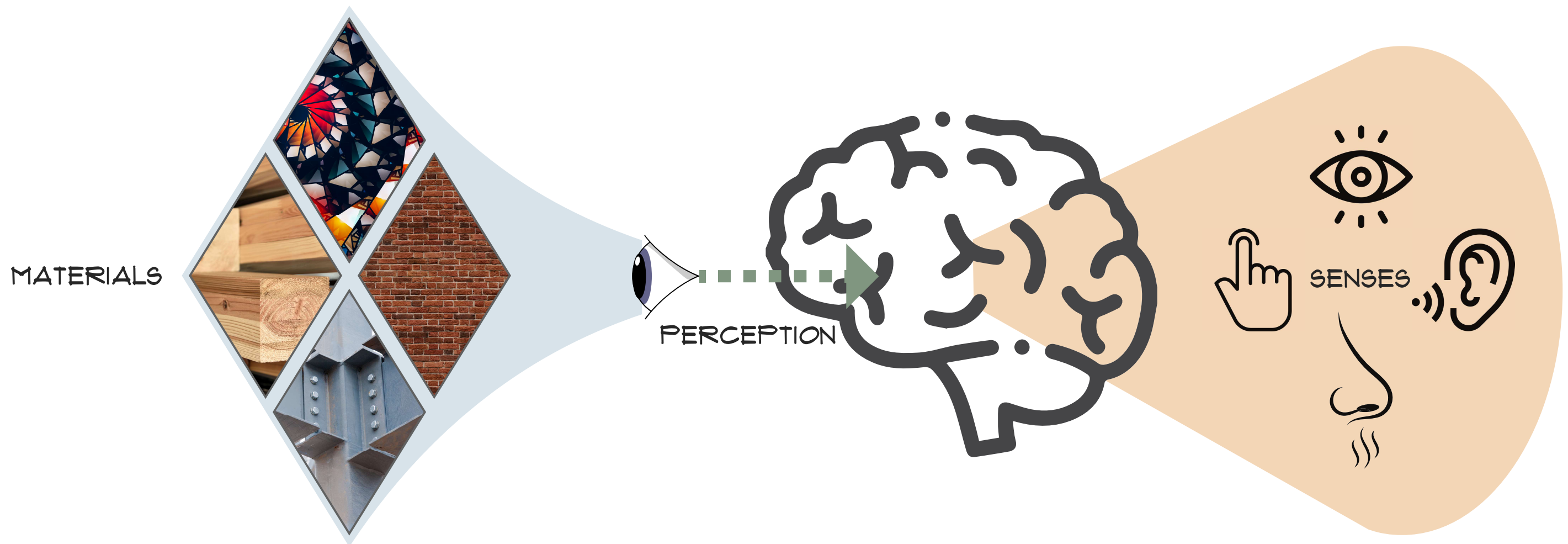
FIGURE 1.1

Through all the studies, it was found that one thing that comes from becoming a craftsman is material consciousness. This can be understood as a mindfulness that is created through the intimacy of the material, maker, and tools in crafting. In order to achieve a connection between the head and hand, people need to connect with their senses as they are learning about the materials in use. When a person starts to see, touch, or even hear and smell the materials, they are learning about all the different properties that the material has to offer. Through this, they are learning to pay attention to details that surround them, which allows them to become more self aware in their everyday surroundings.

In order to achieve material consciousness, one must practice with the materials. This can be done by learning a hands-on craft such as woodworking, pottery, masonry/stonework, metal working,

and glass blowing. Each of these crafts would require spaces that allow a person the right tools and environment in order to study the crafts.

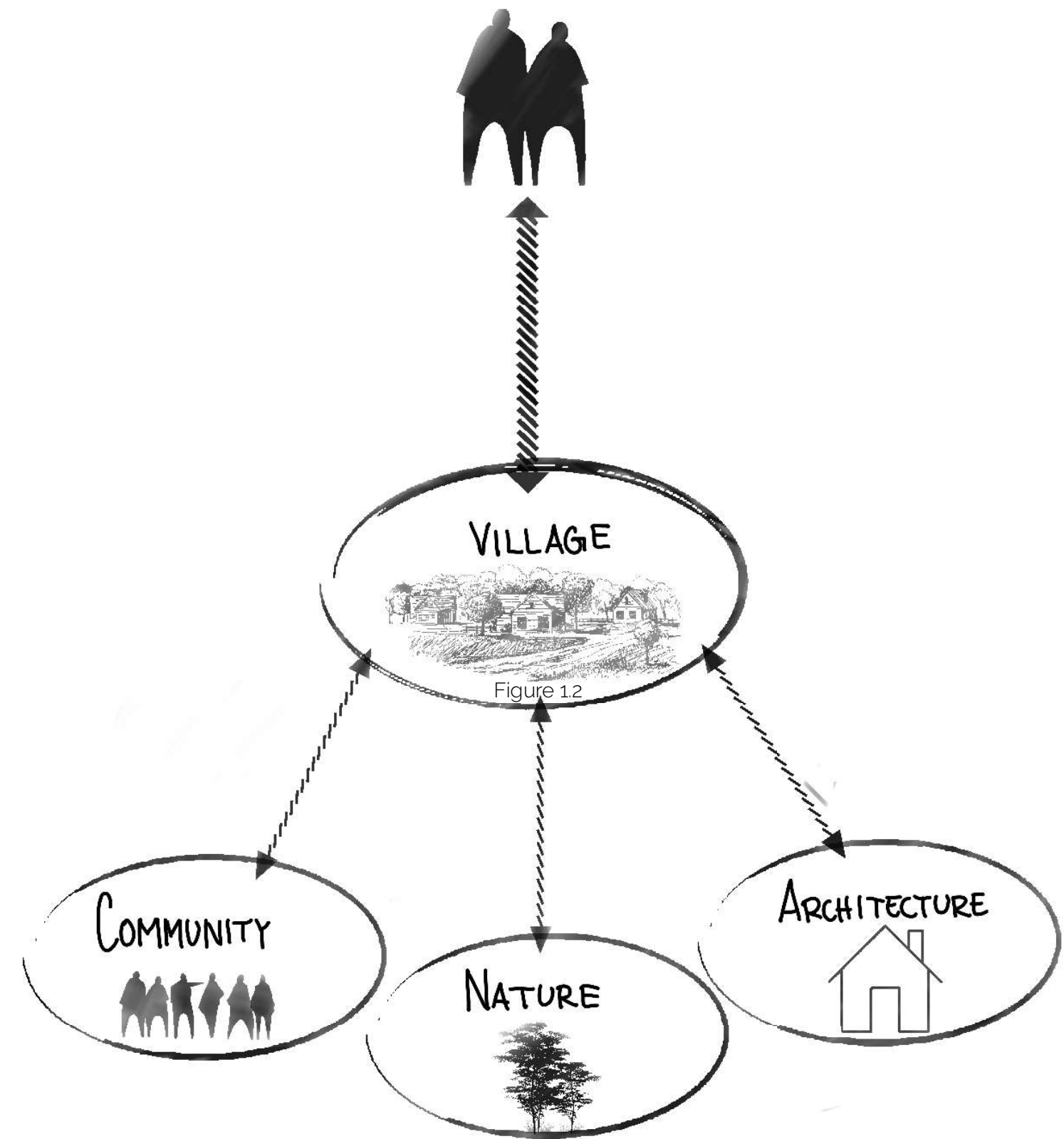
Workshops are the best environments for people to learn tacit knowledge, things that are not easily transferred through verbalizing or writing about it. The workshops would create environments that would encourage people to collaborate with one another, which also encourages a different type of learning style. In order to further instill the mindfulness of the materials that they would be crafting, the workshops designs would be inspired from the material that is to be used the most in the space. For example, the woodshop would be made structurally of timber in a way that demands the attention of the workers to think further to understand the material.



When speaking of the workshops, he praised them highly for their attributes to learning. "Anyone who has taken the trouble to visit casually the workshops will see in all places utility allied with the greatest evidence of intelligence: antiquity made gods of those who invented the crafts; the following centuries threw into the mud those who perfected the same work. I leave to those who have some principle of equity to judge if it is reason or prejudice that makes us look with such a disdainful eye on such indispensable men." (p. 85) He believed that people were not giving enough credit to craftsman because they assumed that the work they did was remedial. Workshops should be seen as a space filled with knowledge that can benefit the entire community.

The workshops would need to have a strong supportive community surrounding them in order for them to be able to withstand the noise of the outside world. With the workshops being within the boundaries of a village, the craftsmen would be given more freedom to express their crafts and have the connection to the community for collaboration.

By bringing community, nature, and architecture together, a village has the ability to create an environment that is more than a community. It has the potential to keep certain standards alive and provide the support that craftsmen need. A village allows the craftsmen to collaborate with one another and create an environment that encourages one another to push the limits of their craft to better the community. The natural elements that surround them would help inspire, while also help with deafening the sound of the workshops for the nearby city. The architecture in the village would help push material consciousness as each of the materials would be represented or used in the structural senses. A village for makers would add to the community because it would encourage visitors and allow the makers to contribute their craft/skills to the city .



HYPOTHESIS

In the attempt to instill material consciousness in the workers, the spaces will have to demand attention and be thought provoking in their design. They must be created to initiate a conversation in the onlooker's mind to help push the thoughts of what they could do better. This pushes material consciousness because the person is able to then start thinking of the possibilities that the material has. They are able to better understand the limits of what they can do, which pushes a person to become innovative and creative in their thought process.

The mindsets of the onlookers would then be seen as material consciousness. This can help our society reconnect the head and hand because they are aware of the physical world that is built around them. They are becoming more connected with their senses as they feel, smell, hear, and see the materials and grow to listen to their senses to push the materials and mold them into their own creations. Applying this to their daily lives would then connect them to their surroundings as they are learning to be mindful in design.

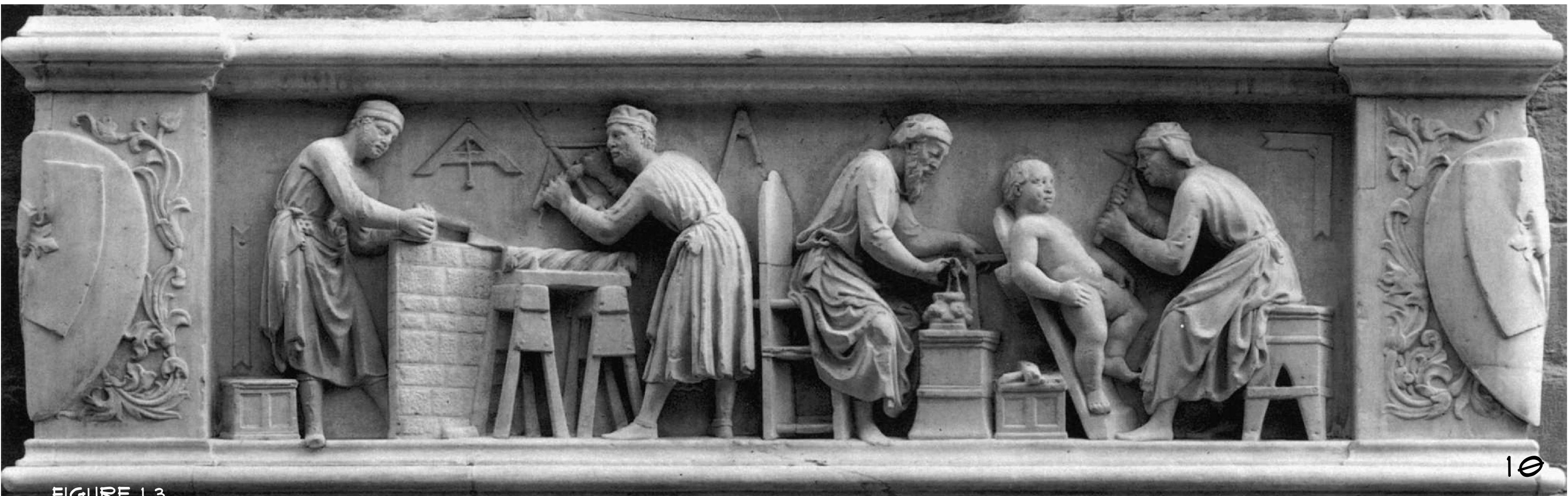


FIGURE 1.3



Figure 2.1
Parchment Makers' Workshop

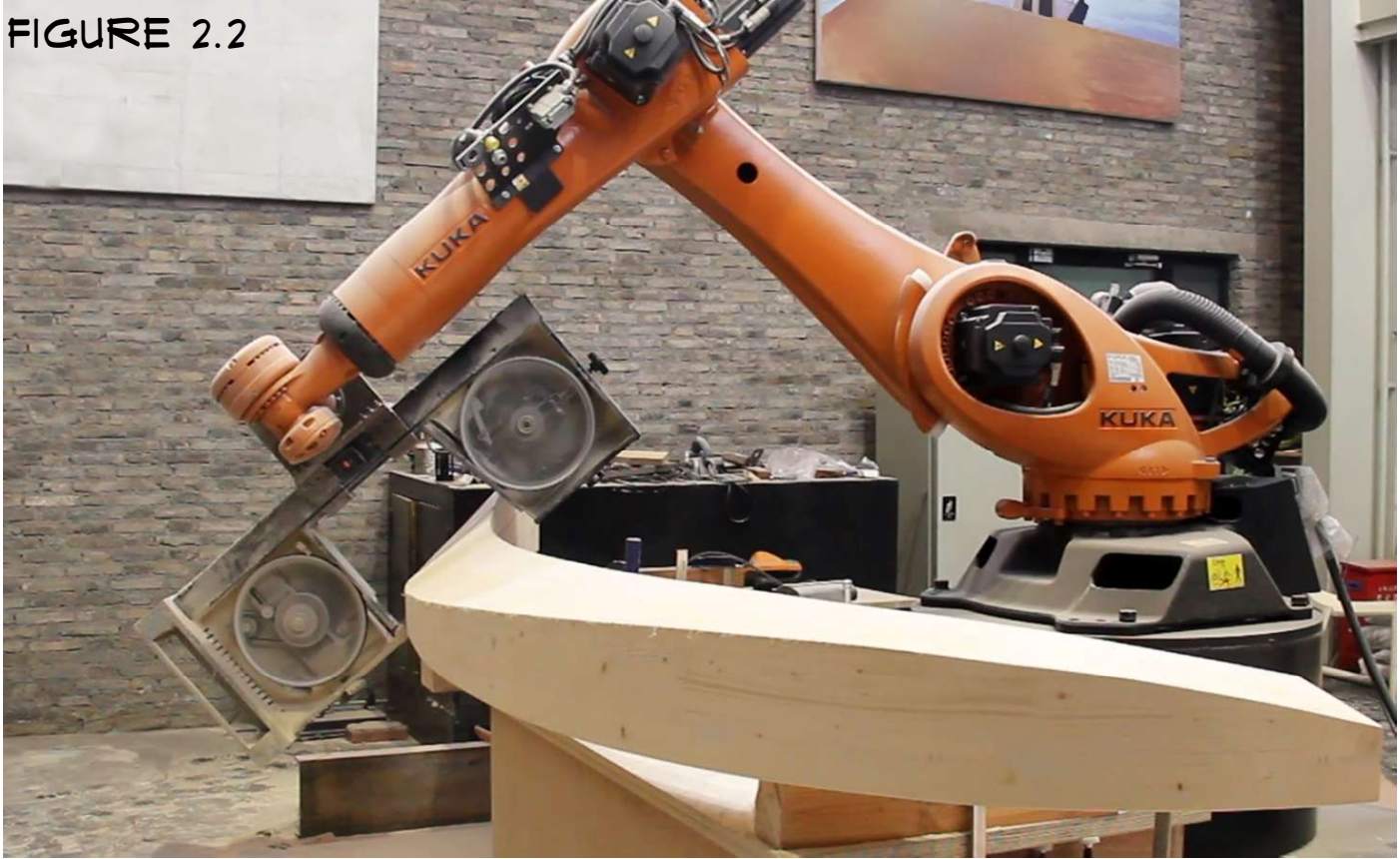
CHAPTER 2

RESEARCH

2.1 CASE STUDIES

2.2 LITERATURE REVIEW

2.3 MATERIAL CONSCIOUSNESS



IN- BAMBOO

Craft Village

Chengdu,
China

Archi-Union
Architects

2018

1800m²

FIGURE 2.4

The architects sees that the village belongs to the craftsman and their “living cultural heritage”. The project only took one month to prefabricate the timber used, and just 52 days to assemble on-site. They believe that this can fight against gentrification because it will encourage the advancement of production systems rather than just replacing the old with modern. The focus is to give the cultural traditions an opportunity to thrive and become more connected with the younger generation to keep the crafts alive.

SAN SA VILLAGE

Rural oasis

Beijing, China

LLLab

2019

1600m²



FIGURE 2.5

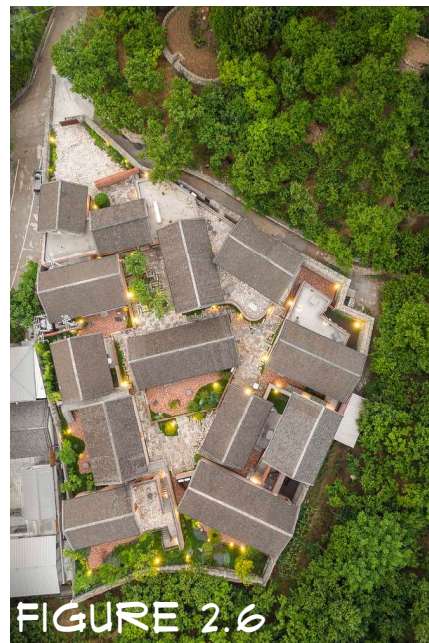


FIGURE 2.6



FIGURE 2.7

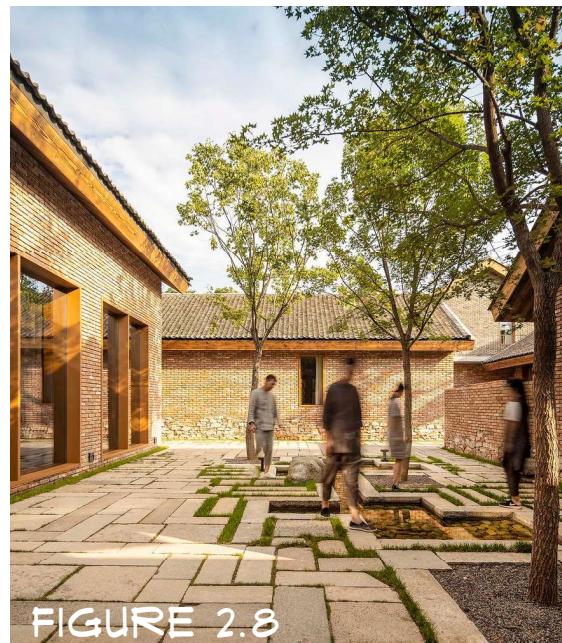


FIGURE 2.8



FIGURE 2.9

The intent of the village was to give people an opportunity to escape their hectic lives and find a social space that would focus on the human-scale with the encouragement of social interface. The material layout was to incorporate the rhythm and pace of the real life and how it can actually be interpreted into something that is peaceful and calm. With this in mind, the designers steered clear of any kind of ornamentation or decorations to encourage people to connect with the natural elements that surrounded them rather than the built environment. The architecture is being used as a tool to help bring people to this state of escapism in the rural oasis. They ran into issues with visions and brought on local villagers to get the most out of what the village within the village could offer. The designers also wanted people to feel the connection of how people in the past might have lived in order to feel the full connection with their surroundings.



FIGURE 2.10

BAUHAUS

School

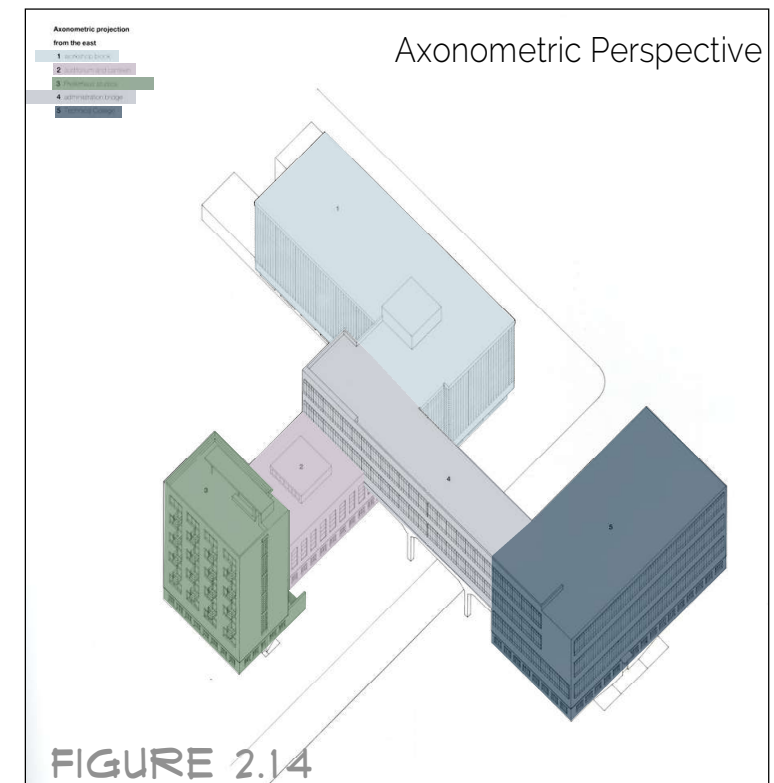
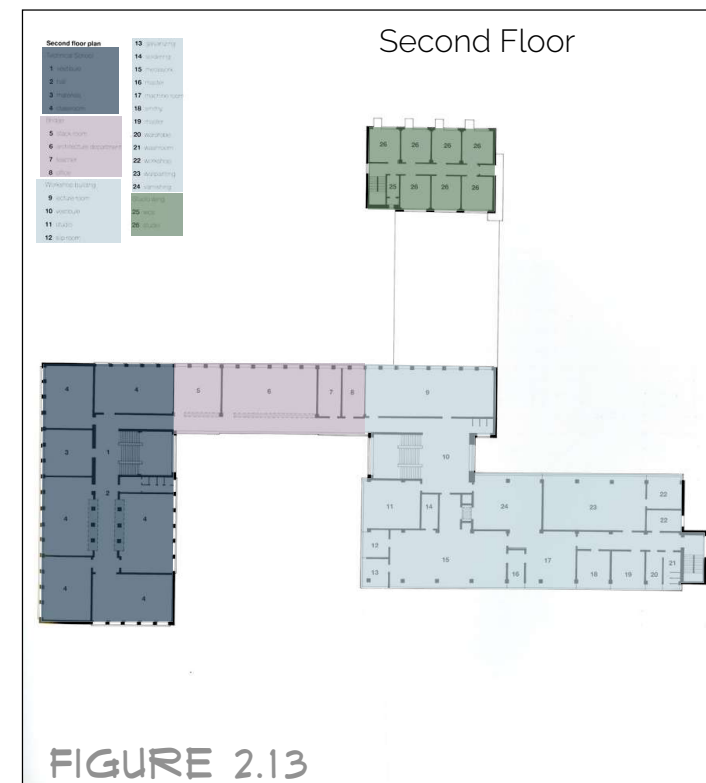
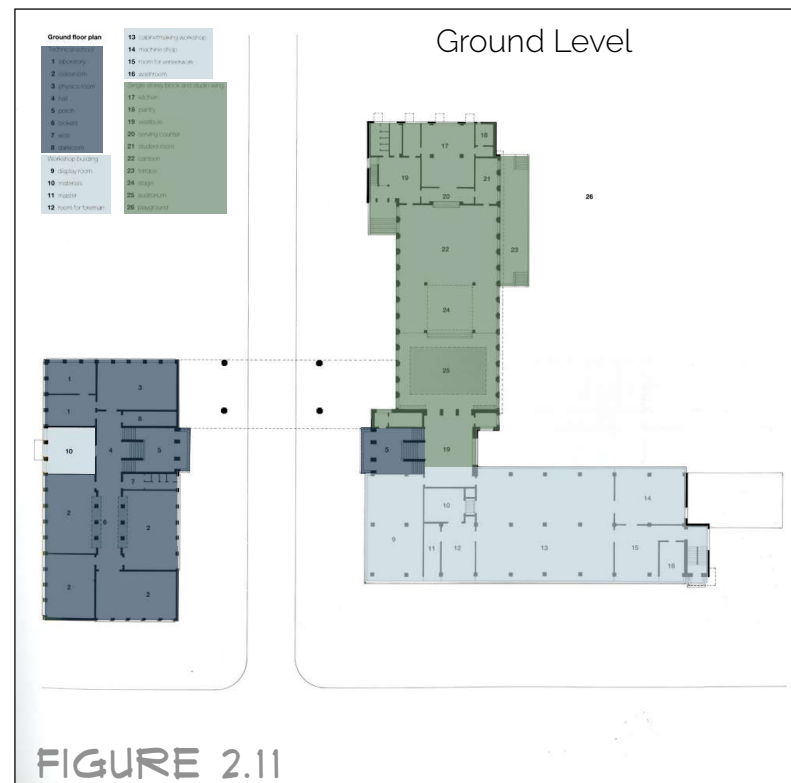
Dessau, Germany

Walter Gropius

1926

The Bauhaus is one of the most well known schools of design and for good reason. There was a sense of community that was instilled through the school based on an apprentice style way of teaching. When a student entered the Bauhaus, they would first take preliminary courses that would teach them the design basics. Once that was completed, the student would move on to the workshops. This is where they would have a master of form and a master of works help guide them and teach them the ways of design. They were encouraged to produce original works and not copy models like other design schools. There were 3 wings in the Bauhaus all connected by bridges. The workshops, studios, and the technical college (classrooms, labs, lockers, etc.)

Looking at the programming and how it was separated, I found that the design of this type of environment should still have its connections. This could encourage collaboration between different studies of the school and could help create something new and spectacular.



Bauhaus Key:

KENNEDY CENTER | THEATRE & THE STUDIO ARTS

School | Clinton, US | 89,000ft2

Machado &
Silvetti Associates | 2014

Hamilton colleges new theatre and art studios was designed with the artists in mind. For the wide range of arts that will be offered in the building circulation, lighting, accessibility, etc were important to emphasize the freedom that comes with designing and creating. The entire building is open 24 hours for those who are in the art, theatre, and music departments. The building encourages spontaneous social interactions with the different students by placing all the classrooms in one area. This was designed this way also for the purpose of the acoustics in the building. Knowing that during class, there is a greater opportunity for more disruption with noise, they placed they clustered them together. The theatres acoustics were also considered and there is a large wall dividing it from the rest of the workshops and classrooms.

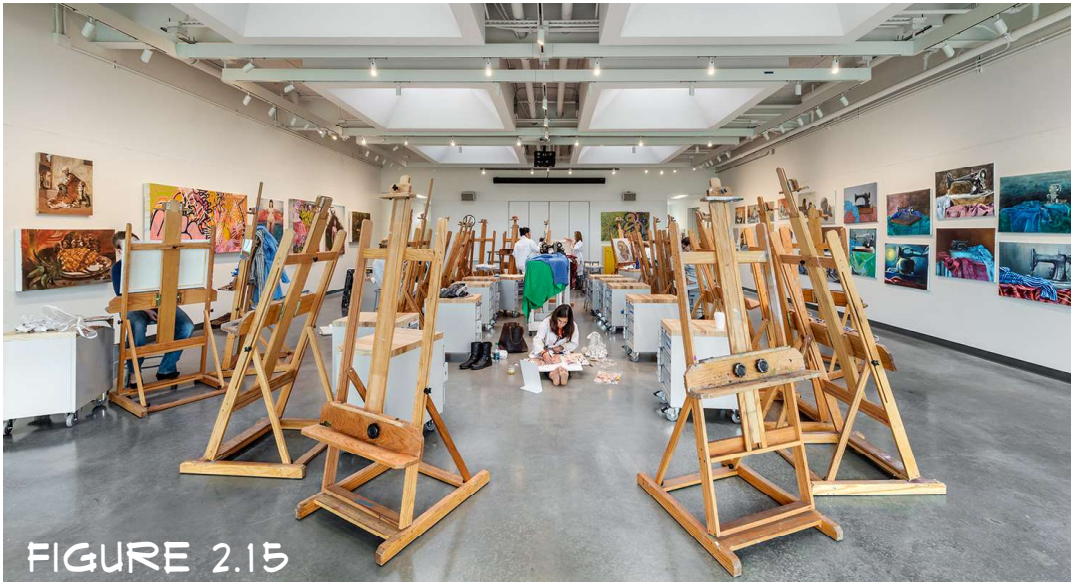


FIGURE 2.15



FIGURE 2.16

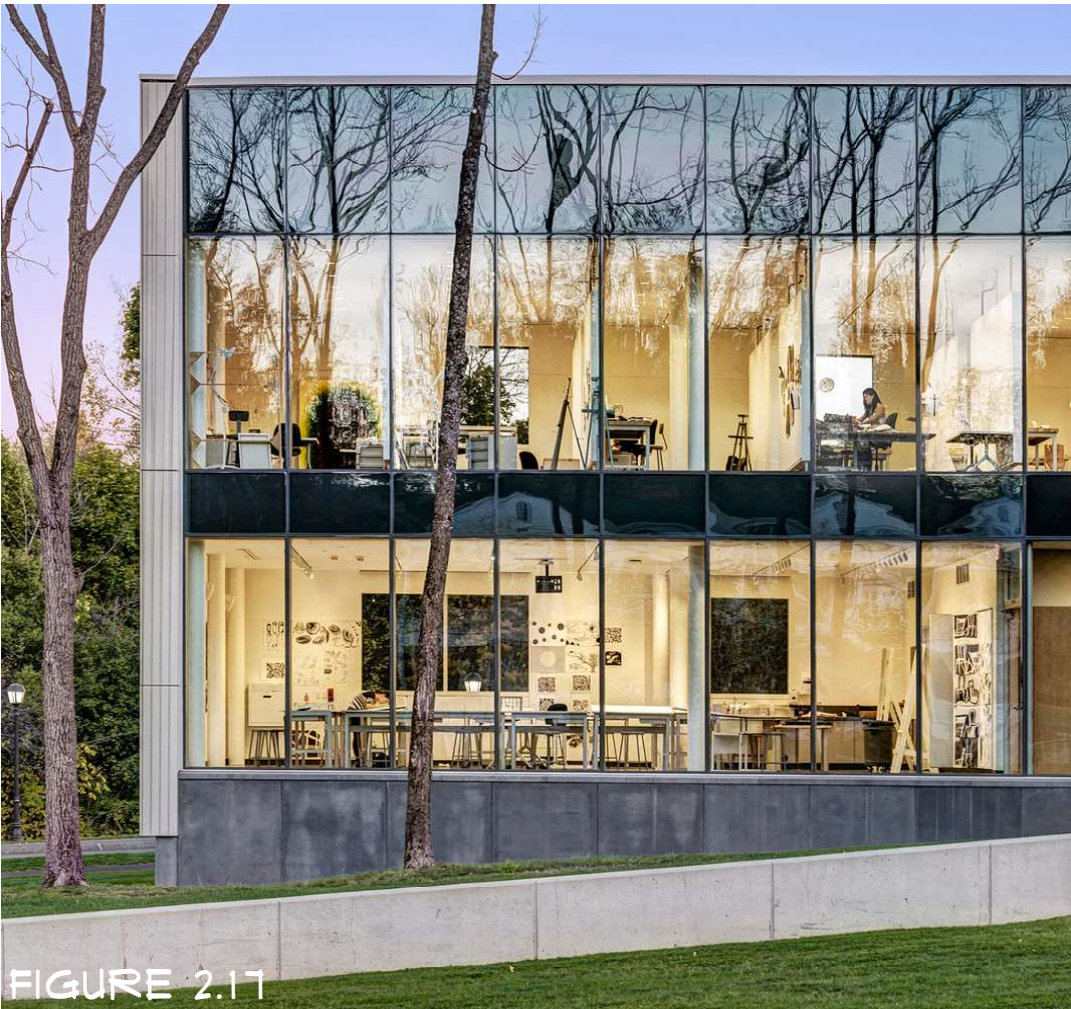


FIGURE 2.17



FIGURE 2.18

YUSUHARA TOWN HALL

Architects:
Kengo Kuma&Associates

Structural Design
Kengo Kuma&Associates

In the design of Yusuhara Town Hall, architect Kengo Kuma used traditional Japanese materials and techniques such a joinery to create a structure that fits well with the site without interrupting nature. The structure is made of a grid system supported by columns. Each column is made of four different smaller members. A larger beam intersects between the small members and is stabilized by bolts. This method not only saves material but also allows for more natural light to penetrate the columns. The system also has 5 layers of wooden girders. These girders cross one another, and a Traditional Japanese notching method is used to fit the blocks with the beams. Kuma uses the layers of wood girders to act as the frame. Bolts are used in the joints for extra safety. The physical barrier separating the inner and outer environment consists of glass and wood panels that block out air. By breaking down the materials into smaller pieces, Kuma creates an environment that allows for sound, light, wind and other natural factors to penetrate freely.

This would later be applied to my design because of the structural engineers total understanding of the limits and properties that timber have to offer.



FIGURE 2.19



FIGURE 2.20

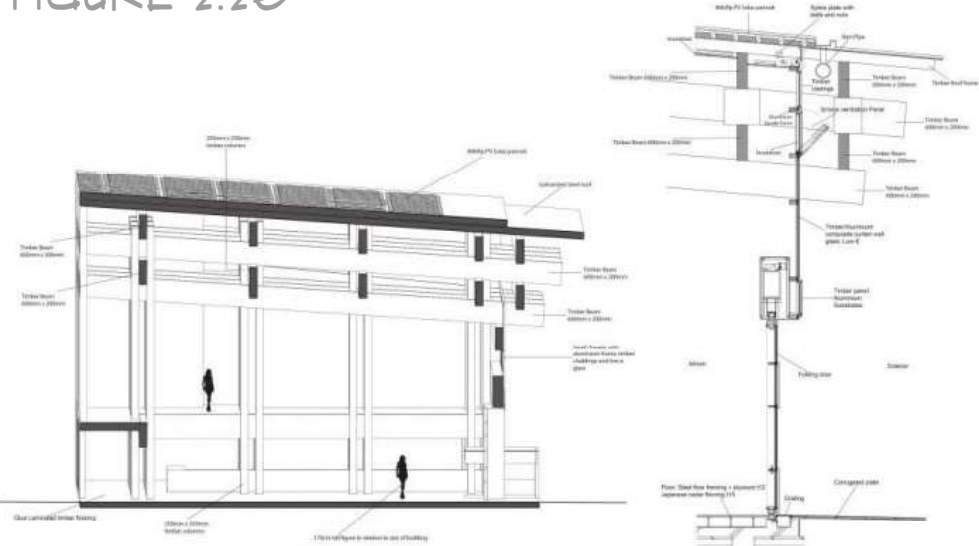


FIGURE 2.22



FIGURE 2.21

POTTERY HOUSE

Frank Lloyd Wright

The Pottery House in Santa Fe, New Mexico was designed by Frank Lloyd Wright. The house is 5,000 square feet and has curves in every direction with wooden interiors and low-profile lighting throughout. The building overlooks Santa Fe and allows for unobstructed views in every direction. Adobe bricks were used to create concentric circles that mimic a pottery design

I later apply this same idea of using clay as inspiration for the driving focus of the design for one of my workshops. This would encourage and help material consciousness in the users.



FIGURE 2.24

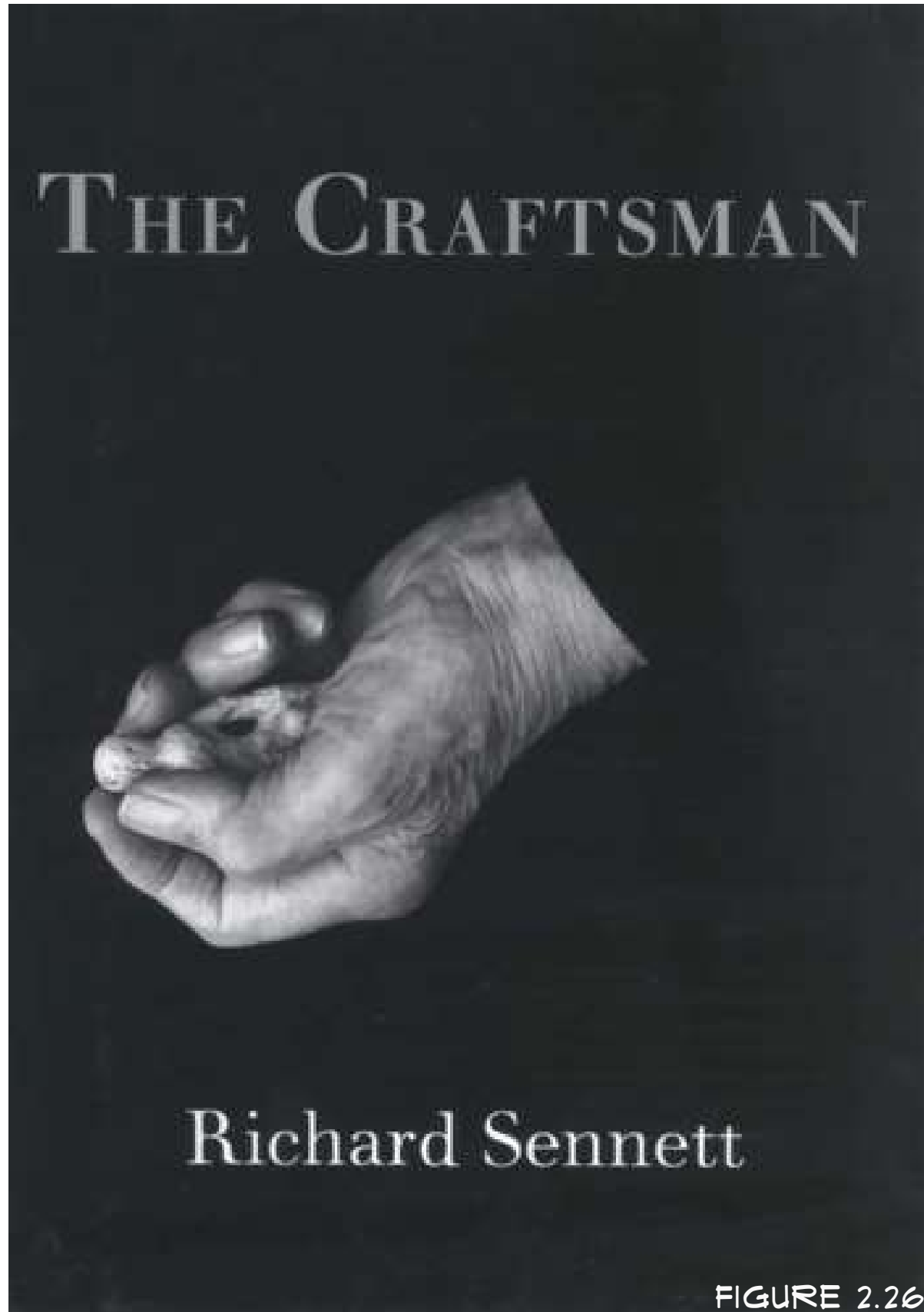


FIGURE 2.23



FIGURE 2.25

LITERATURE REVIEW



Richard Sennett defines craftsmanship as a "basic human impulse, the desire to do a job well for its own sake" (Sennett, p11). He goes on to explain that craftsmanship is not just for the artistic jobs. Craftsmanship can range from cooking to being a doctor and from computer programmers all the way to being a parent. Craft is a learned skill through time. Throughout his book, "The Craftsman", Sennett brings up many other factors that play into becoming a craftsman that can be applied to the many different labors he touched on. He then creates a kind of formula for becoming a craftsman. Knowledge learned through material awareness that is learned through time; the focus is on the community rather than the self; a drive of passion, obsession, curiosity, ambiguity, and desire to do the job well for its own sake; and the ability to give into surrender of control.

One part of being a craftsman is the skill of "material consciousness." This means there is knowledge that is learned through crafting, which takes time through embodied and tacit knowledge that is instilled through working enough time in that craft. With this, the craftsman learns what is necessary for the next step or what needs to be done in order to achieve the best version of that craft. This is important to the formula of a craftsman for the purpose that it is learned through time. One must have enough experience with the tools and materials in order to understand what is essential to keep the craft up to par.

Craftsmanship is not about making something in an artistic style. There is a major difference in defining an artist and a craftsman. The difference being focused more on motive and ideals rather than style or construction. According to Sennett, "the craftsman outward [is] turned to his community, the artist inward [is] turned upon himself." (p65) He believes that the difference between the two is sociological. "The two are distinguished, first, by agency: art has one guiding or dominant agent, craft has a collective agent. They are, next, distinguished by time: the sudden versus the slow. Last, they are indeed distinguished by autonomy, but surprisingly so: the lone, original artist may have had less autonomy, be more dependent on uncomprehending or willful power, and so be more vulnerable, than were the body of craftsmen."

(Sennett, p.73)

Defining and applying craft can have important and lasting effects on our society. We need to move away from the artificial values and into a future that sees values that are genuine. Our society is often viewed as being too absorbed in consumerism and mass production and are unsure of the values of what true craft is. Finding craft in the modern era means leaning into technology as a tool. Architects need to use technology as a tool to find a new form of craft. The digital craft. Looking to the medieval era to study their techniques and material use could be beneficial seeing as we have lost our way by the deprivation of mass production.

Craft defined by David Pye is, "[Craftsmanship] means simply workmanship using any kind of technique or apparatus, in which the quality of the result is not predetermined, but depends on the judgment, dexterity and care which the maker exercises as he works. The essential idea is that the quality of the result is continually at risk during the process of making; and so I shall call this kind of workmanship the workmanship of risk." Pye is stating that for the object to be craft, there needs to be human judgment throughout the process guiding it to an end result that may or may not be predetermined. Society has become pampered through mass production and the idea of mass customization. People easily put the blame on technology. Yet, technology should be used as a tool. Instead we should encourage the proposition to rekindle our minds with our hands. We as humans need to find our consciousness with our surroundings, and one way to do so is to learn a craft.

Image to right:
David Pye in his workshop
for furniture design.
Photo by: Phillip Sayer/
Crafts Council



FIGURE 2.21

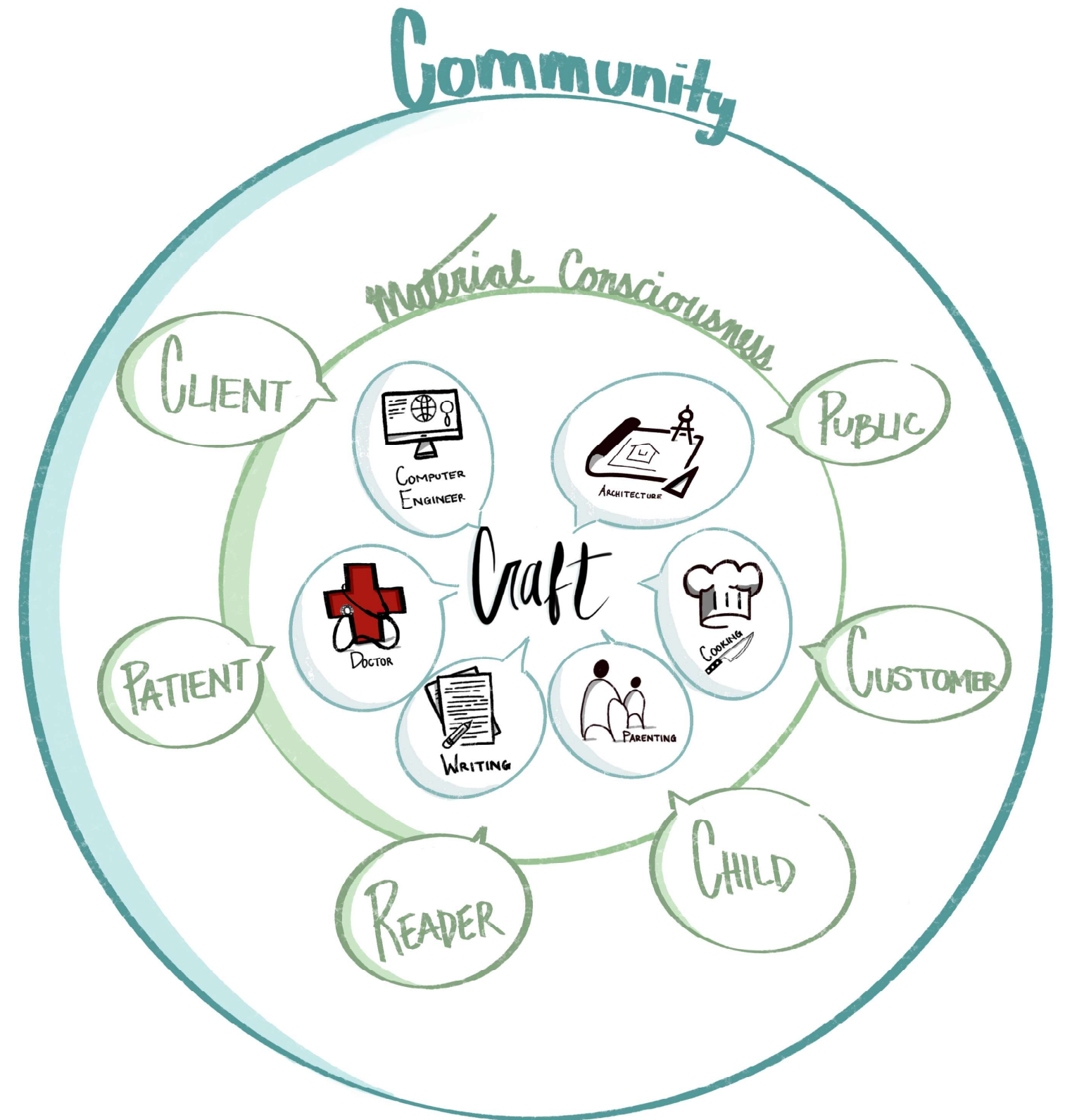
MATERIAL CONSCIOUSNESS

What makes a craftsman is not decided based on the action, but rather on the outputs and the thought process through the action. A craftsman can range from an architect to a doctor. From a parent to a computer engineer. What makes them craftsman is how the person is applying the knowledge that they have to attempt the best outcome possible. They are conscious throughout the decision process and are doing what they believe is best for their community.

One of the attributes of what makes a craftsman is the idea of material consciousness. This concept can be understood as having a sense of mind-fullness as you create. There is a connection being made between the creators head and hand that is implemented or encouraged through the use of tools.

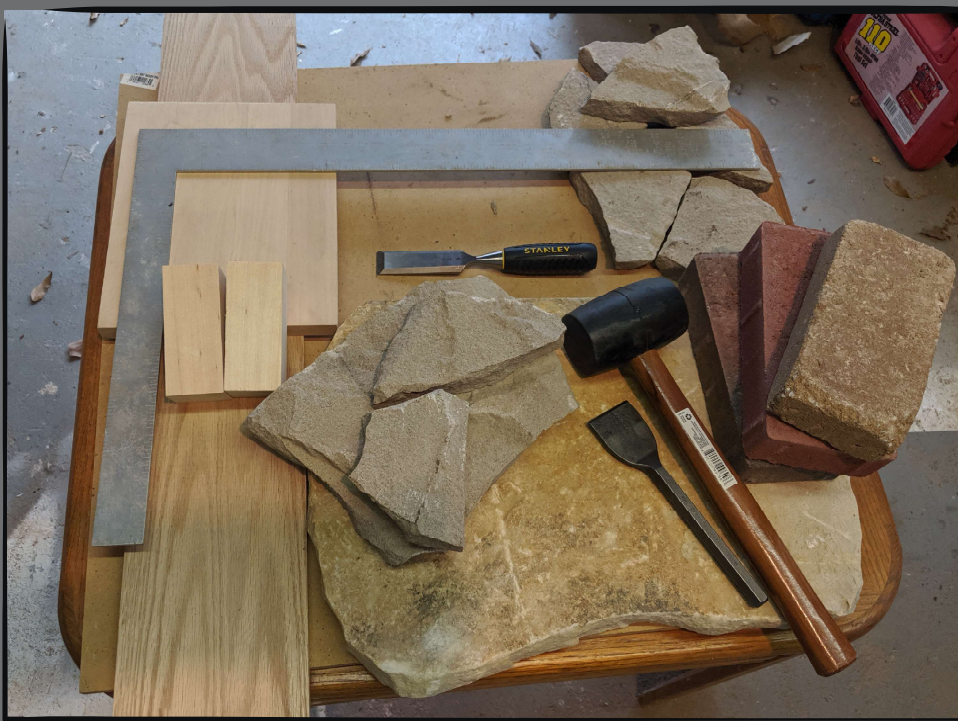
Material Consciousness is the knowledge that is learned through crafting, which takes time through embodied and tacit knowledge that is instilled through working enough time in that craft. With this, the craftsman learns what is necessary for the next step or what needs to be done in order to achieve the best version of that craft. One must have enough experience with the tools and materials in order to understand what is essential to keep the craft up to par

Through the senses you become aware through time what to do with the materials and how to best achieve an end result with them. Through material consciousness, you are connecting with your senses in a practical way.



ARTIFACT

In an attempt to start an understanding of having mindfulness through the process of creating, I felt the need to get my hands dirty and apply it to real materials that I would be able to connect with through my hands. I was attempting to apply my knowledge of the tools that I had present to create a connection of materials. The result would be me having a better understanding of the tools along with my mind wanting to explore more of the materials attributes and wanting to push the materials to a different limit.



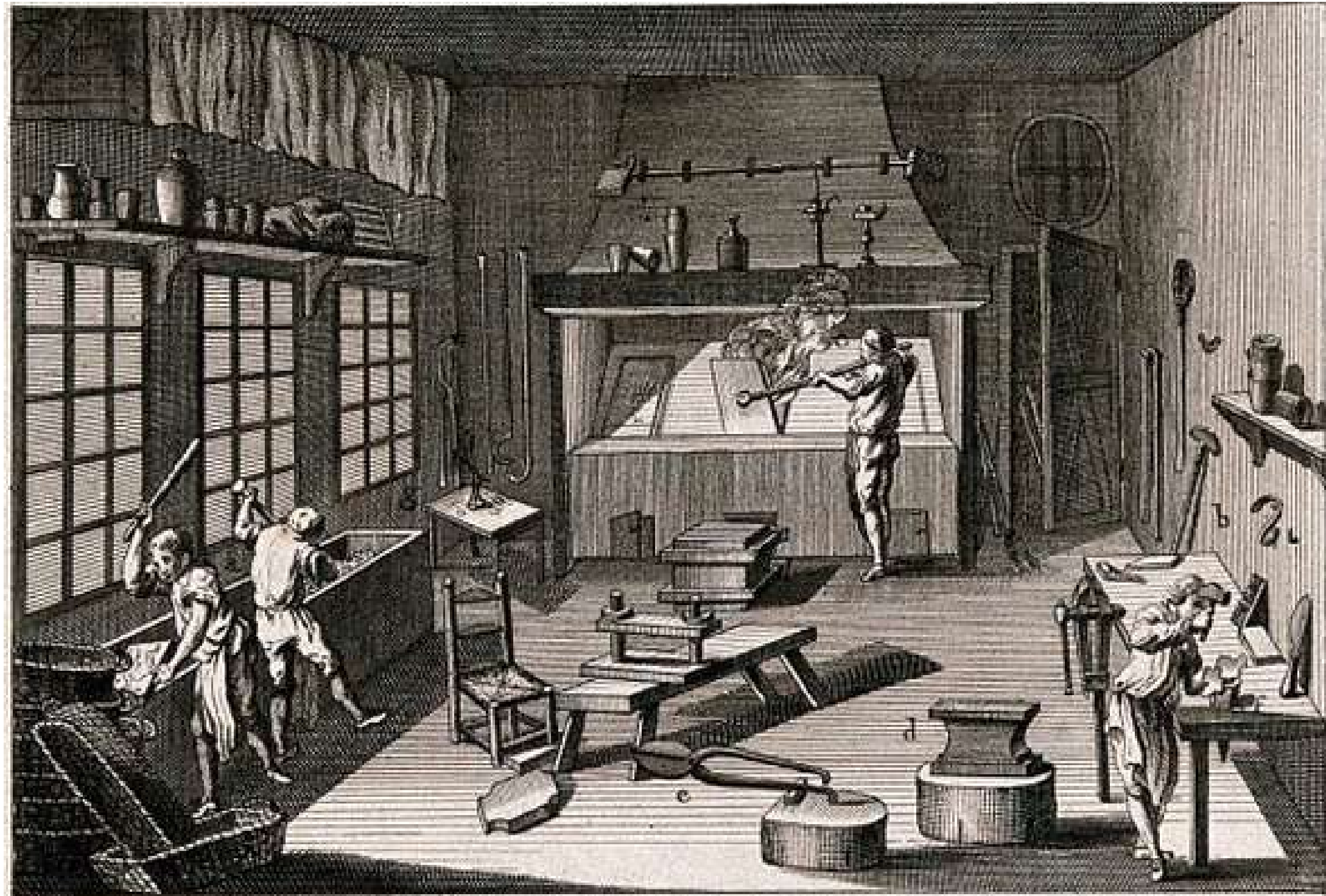


Figure 3.0
Coinage Makers' Workshop

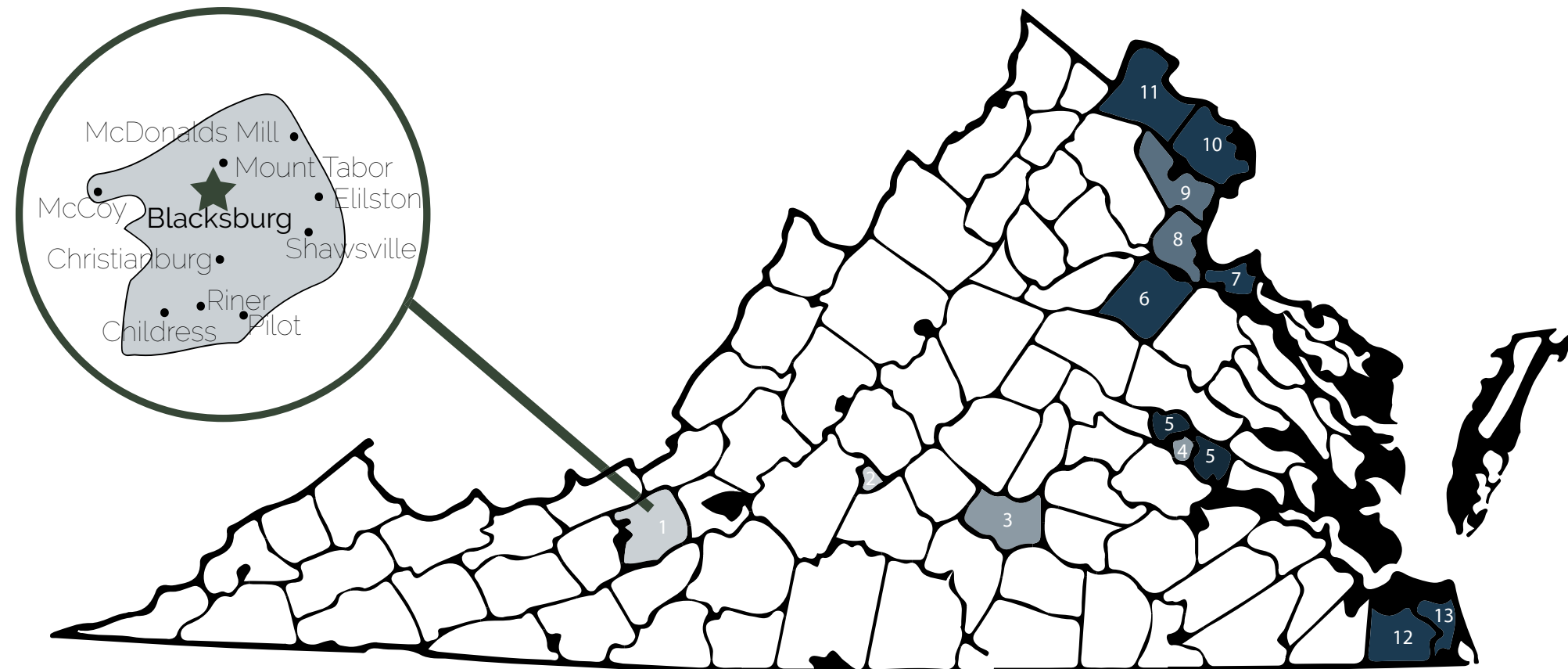
CHAPTER 3

SITE

- 3.1 VIRGINIA, USA
- 3.2 BLACKSBURG, VA
- 3.3 LIVE | WORK | SELL
- 3.4 EXISTING SITE
CONDITIONS
- 3.5 VIRGINIA MATERIALS
- 3.6 COLLEGE TOWN
- 3.7 MOVING FORWARD

Virginia seemed to be the most beneficial state to apply my thesis due to the fact that it has one of the lowest demographics in the entire nation. It is important to focus on the younger generation to encourage them to expand and reconnect with the materials of the built environments surrounding them. Focusing on a younger generation allows a person to instill positive habits for learning to continue throughout their lifetime. Providing the correct tools and opportunities to learn is a major part of the thesis to create a positive sense of encouragement to pursue the crafts.

Keeping true to focusing on a young demographic, the city of Blacksburg was the youngest city in terms of persons ages.



Age
Group: Name:

27.1-30
1 Montgomer County - 28.2
2 Lynchburg (Independent City) - 28.3

30.1-33
3 Prince Edward County - 30.8
4 Richmond (Independent City) - 33

33.1-36
8 Stafford County - 35.2
9 Prince William County - 35.4

36.1-39
11 Loudoun County - 36.4
13 Virginia Beach County - 36.5
12 Chesapeake County - 36.6
7 King George County - 37.1
6 Spotsylvania County - 37.3
10 Fairfax County - 38

39.1+
5 Henrico County - 39.3

BLACKSBURG, VA

I focused in on the youngest demographic city in the county of Montgomery. This city turned out to be Blacksburg, Va. It can be considered a college town due to the fact that a decent sized portion of the structures in the city are owned by Virginia Tech. The school has a major presence in the city throughout the downtown district.

The site I was focusing on used to be a park, but the city has decided to get rid of that and now it is a blank lot of land. With the opportunity to be so close to the cities main street connection into downtown, this site was a great opportunity to have people access it and pull them further into the site.

Blacksburg Map Key:

Color:

Type:

Government / Commercial

Residential

Virginia Polytechnique

Park

Religious Building

Airport

School

Apartment

Golf Course

A stylized map of Blacksburg, VA, showing a grid of streets and various building types. A red dashed rectangle highlights a specific area in the center-right of the map. The map includes icons for various building types and a central 'VT' label.

26

BLACKSBURG, VIRGINIA

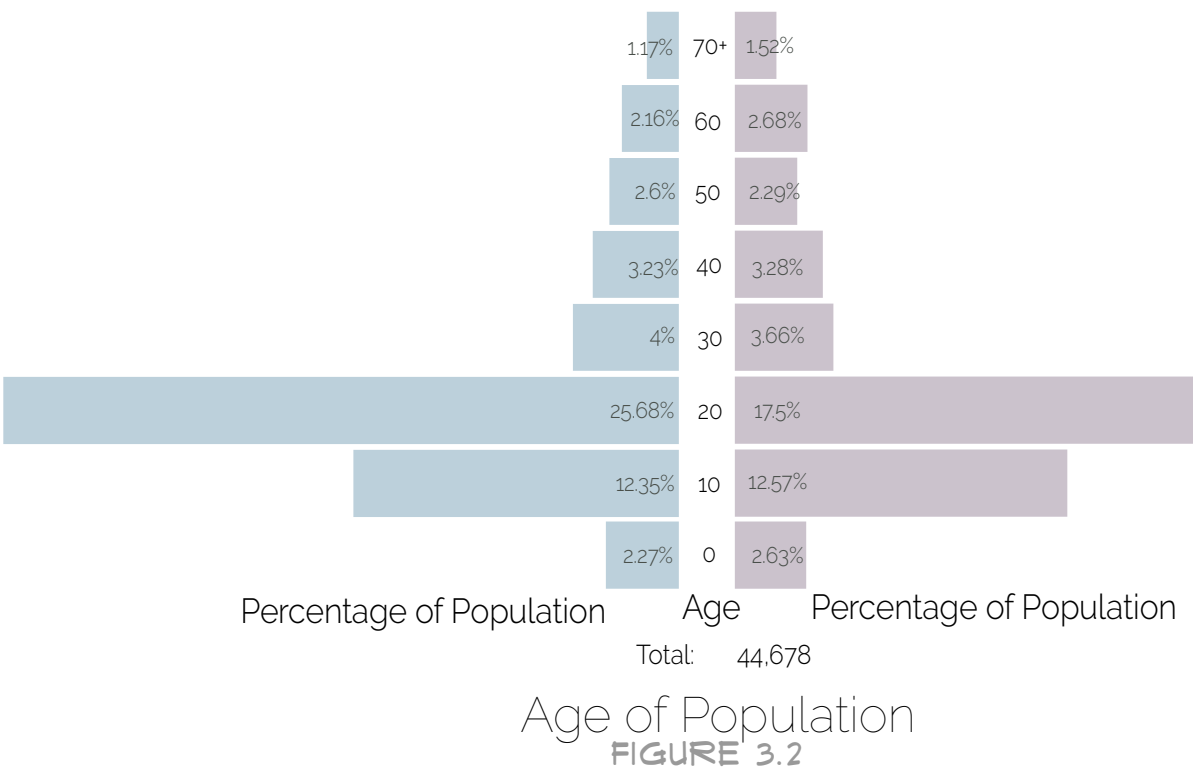
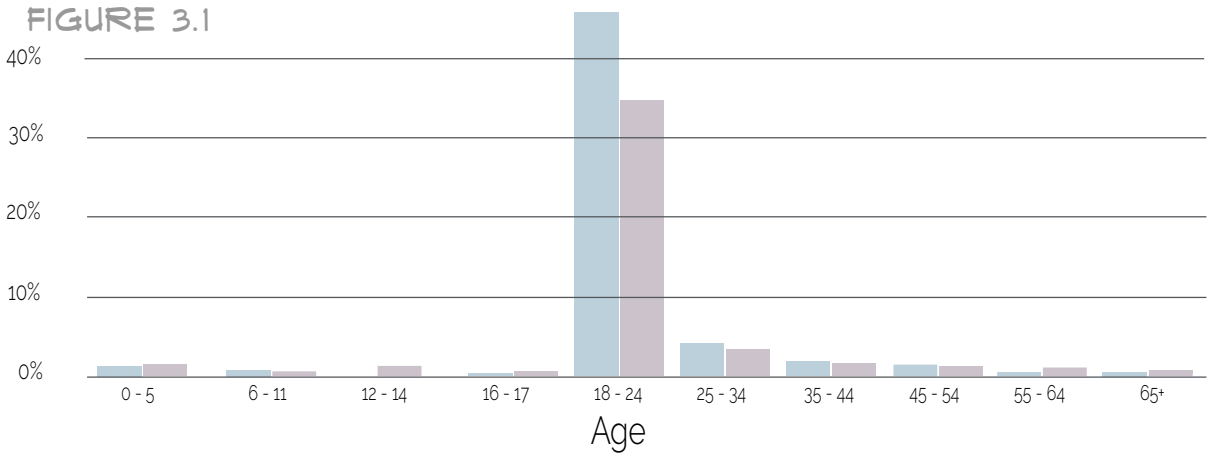
FOUNDED 1798

The city of Blacksburg's young demographic stat is because of the city's college, Virginia Tech. Even though the college was founded 74 years after the beginning of the town, the college has taken over as the main focus. The city seems to cater towards the college in its programming surrounding the area. along with its demographic stats. Although, this does not seem to be what the city wants for itself. They are beginning to take steps into creating an identity apart from the college.

Poverty Stats

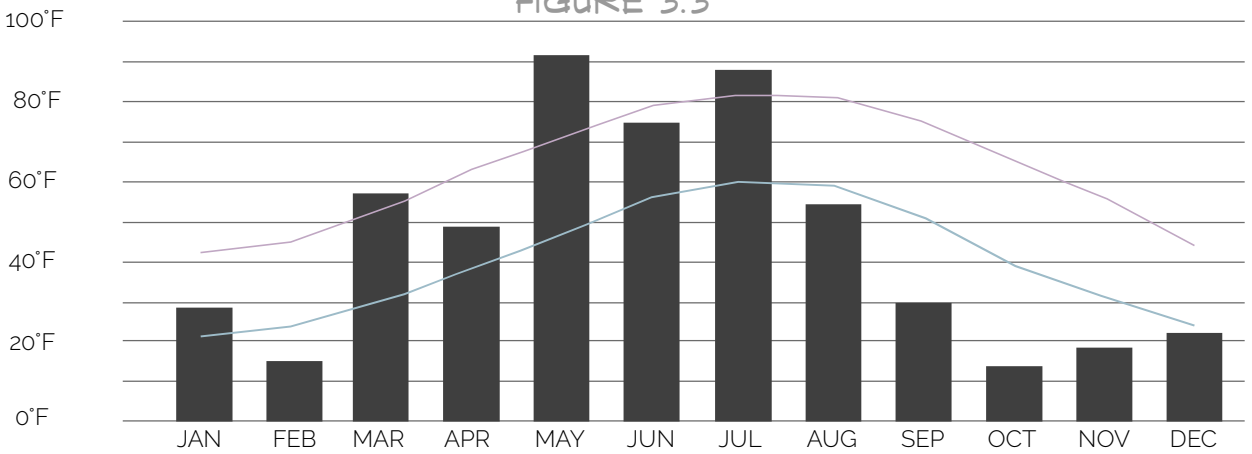
43.7% of population live under poverty line in Blacksburg, VA.

FIGURE 3.1



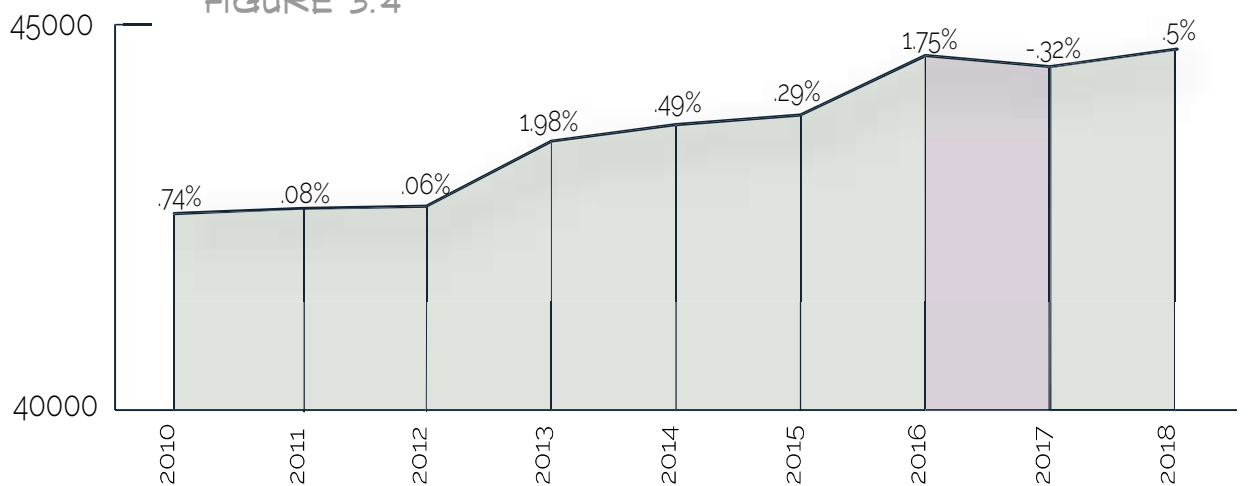
Blacksburg Weather/Climate Chart

FIGURE 3.3



Population Growth

FIGURE 3.4



LIVE | WORK | SELL

Blacksburg is attempting to be seen as a city with a unique identity other than a college town. They are now focusing on the artists with their new business proposal for local artists. Starting in 2015, they issued a zoning that allows artists to lease or own a home in downtown Blacksburg that encourages artists to have a space to live, work, and sell their work. The program is overlayed over existing residential zoning and comes with qualifications.

This type of programming allows the artists to feel as though they have a space to be heard. There is celebration in thier work by the town displaying and selling their work. The majority of these opportunites happen on Main Street which flows through the entire town. As you walk through the city, you are well aware of how much they appreciate the art as it is displayed through local business, galleries/museums, along with having several different performing art buildings. The city is recognizing the potential art has in a community and is wanting to represent their local artists the best the can.

LIVE | WORK | SELL REQUIREMENTS

- 1) Cannot be an already existing business.
- 2) Must be a "qualified arts business"
 - 2i) Must be live performances or a production or exhibiting physical works of art
- 3) Meeting standards in the town of Blacksburg's zoning ordinance
 - 3i) Provides instruction in: visual or performing arts
 - 3ii) Artist's studios/single artists: only artist leasing can sell work there
 - 3iii) Artist studio/Multiple artists: works can only be sold by artists living there

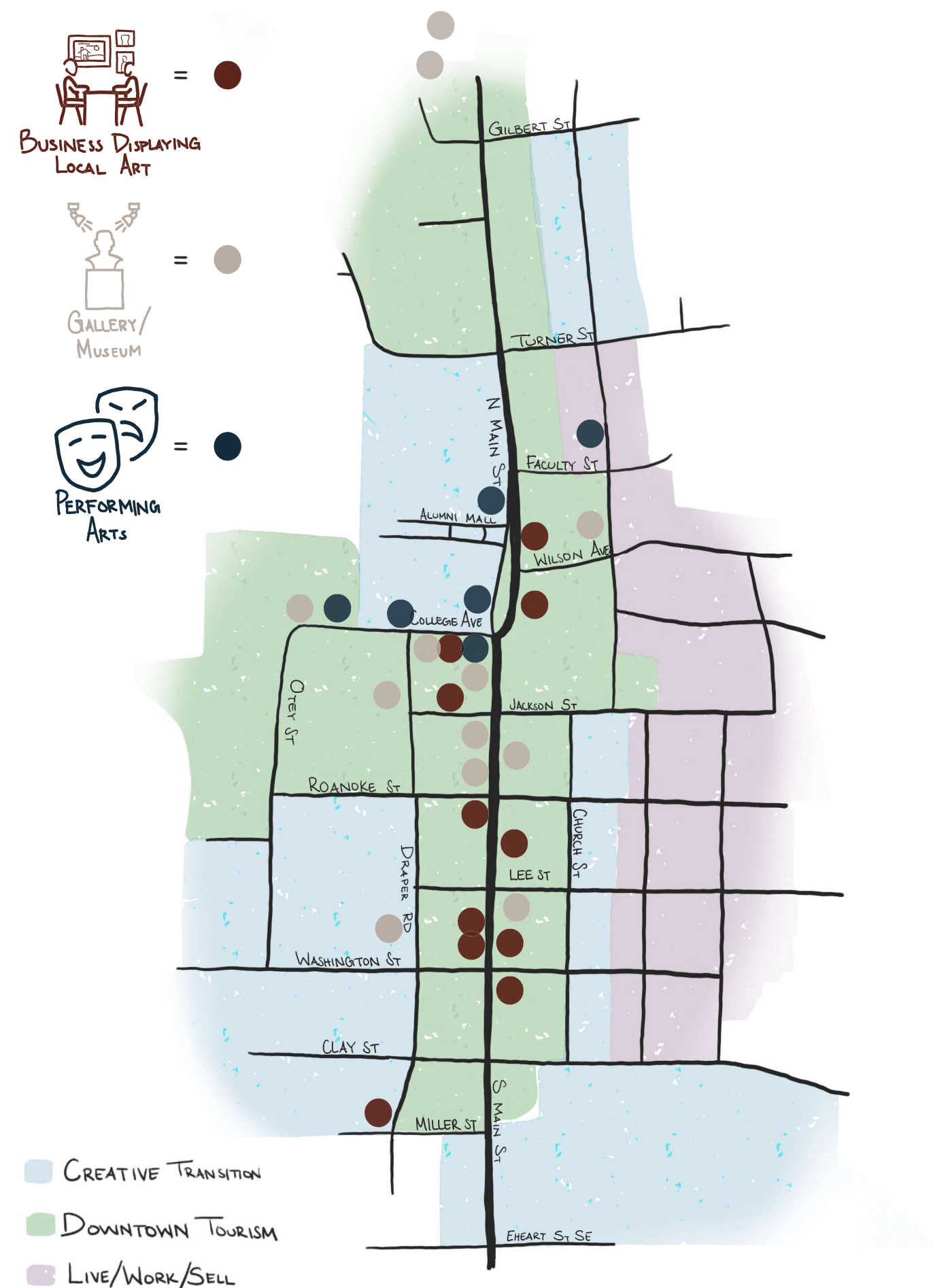


FIGURE 3.5



EXISTING SITE CONDITIONS

The best site in the city was located right off of Main Street. This would give easy access to pedestrians along with having a major presence in the city. On the west side of the site, there is an existing retail/residential building that is 3 stories high. The main material that is used on the structure is the red brick that is found throughout the town. To the south and east of the site there is residential buildings, while to the west and north of the site there is mostly retail and government owned buildings.

There needed to be a large amount of space in order to achieve the projects goal of making a village. The site is nearly overwhelming in the potential space used., with nearly 17 acres.

There is no doubt that the city is perfectly placed to have exceptional views of the mountains in the distance. This can be used as an advantage for inspiration and creativity as the craftsman feel closer to more natural elements surrounding them.

Brick

Bacon's Castle
1655 - 70
Surry, VA



FIGURE 3.6

Monticello
1826
Monticello Lake, VA
Thomas Jefferson



FIGURE 3.7

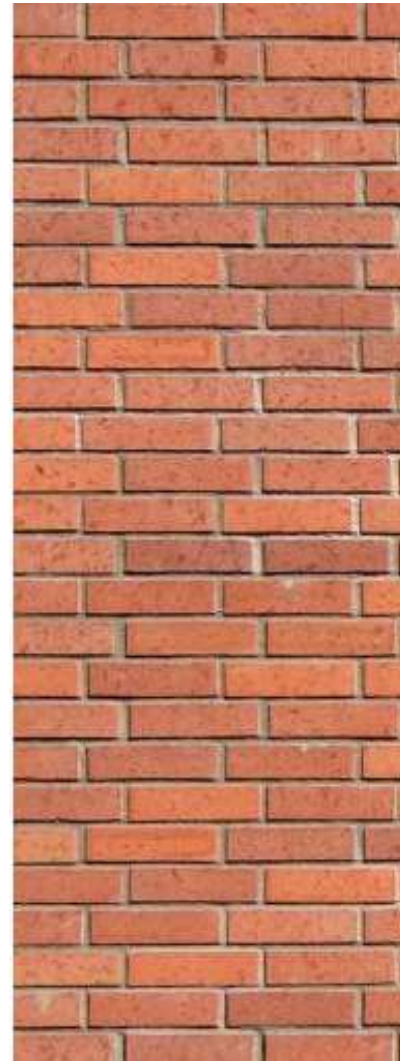


FIGURE 3.8

Ayers Mansion
1880s
Big Stone Gap, VA
Charles Johnson



FIGURE 3.9

Old City Hall
1894
Richmond, VA
Elijah Meyers



FIGURE 3.10

Stone



FIGURE 3.11

Pope-Leighey House
1940
Richmond, VA
FLW



FIGURE 3.12

Structure of Timber
house along with a
sketch a colonial log
cabin in Virginia.

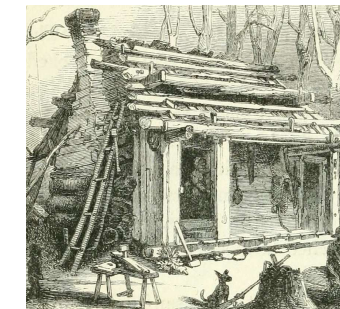


FIGURE 3.13

Timber



FIGURE 3.14

VIRGINIA LOCAL MATERIALS

In order to achieve material mindfulness, there needs to be a connection to the community and culture surrounding the craftsman. In this case, this would be Virginia. The local materials of Virginia include red brick, limestone, sandstone, and timber. Using these in a manner to stay true to the culture and history of the region would be important to instill proper craft as a craftsman's objective is to create something to better their community. Moving forward with the design, the materials that will be focused on in design will be brick, stone, and timber.

Specific to the city of Blacksburg, these materials still stand true to being the most used for building materials. Virginia Tech college uses stone for all their buildings to stand out. The rest of the town is mostly made of red brick with mostly residential being timber based.

COLLEGE IN BLACKSBURG, VA

The Virginia Polytechnic Institute and State University was founded in 1872. Since then, the college has grown along with the town of Blacksburg. The college makes up a large amount of the buildings throughout the city. Even though the city has instilled this idea of focusing on artists and encouraging the more creative lifestyles and careers, the college is not following suit. With the city's new program of the live, work, sell, there should be more opportunities given to the students to find their way in the art world. Looking into the colleges degrees that are in the artistic field make up less than 5% for Bachelor's and just over 6% for Master's. With the city wanting to change its identity, the college should follow suite seeing as they are so intertwined.

Although the college makes up a large portion of the city, it is easy to distinguish which building is part of the school. Throughout the campus, the buildings are all made up of limestone that they proudly receive from a local quarry. The college does this to hold true to tradition and culture and even go as far as to name it "Hokie Stone".



Live sell shop

2017 Bachelor's Degrees

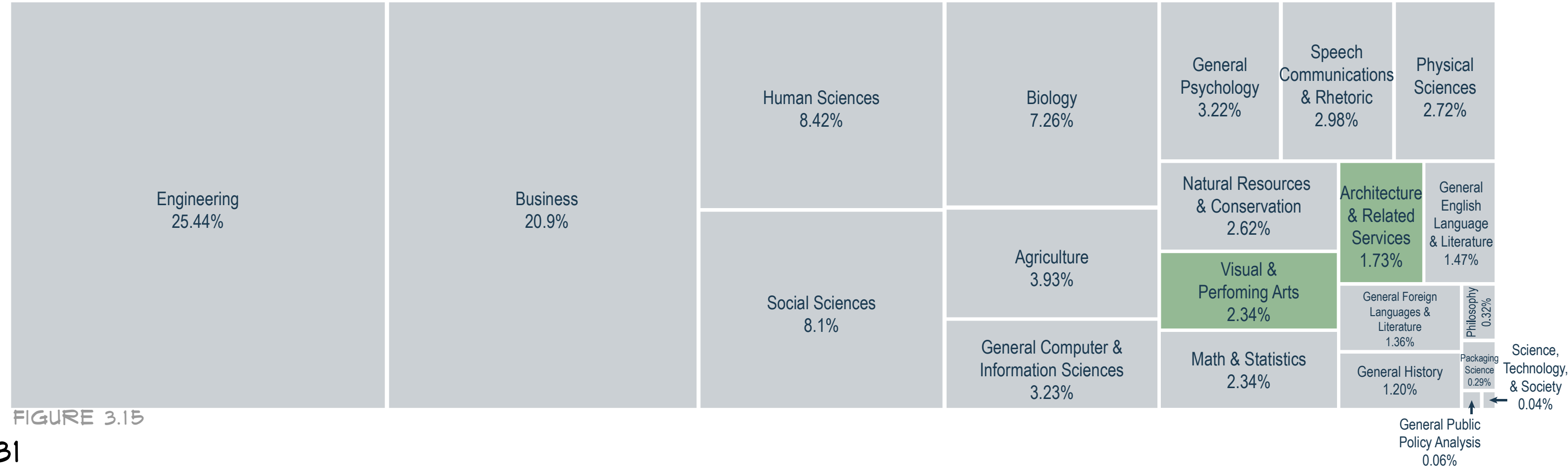


FIGURE 3.15

THOUGHTS MOVING FORWARD

This thesis is meant to create a village that allows all generations to reconnect with craft. The personal teaching style that collaborative workshops offer people is to connect and create a community through craft. This kind of community is meant to connect the makers, tools, and materials by giving them a chance to practice mind-fullness through design or the actions made by the craftsman. The reconnection of the relationship of the head with the hands is important to people finding more self awareness in their surroundings. The senses while working with the materials that a person is crafting become heightened as they are trying to figure out the next steps in order to achieve the end result they desire. This would all become possible by instilling material consciousness into the built environment along with the encouragement through the layout of the structures to interact and collaborate.

Using the city of Blacksburg, Virginia is important because the city is already taking steps in a similar direction. They are wanting to create an identity that focuses on the creative side of living and encourage that in their community. There is an added benefit of the city having a younger demographic that will instill this positive behavior at an early stage of their life.





Figure 4.0
Coinage Washers' Workshop

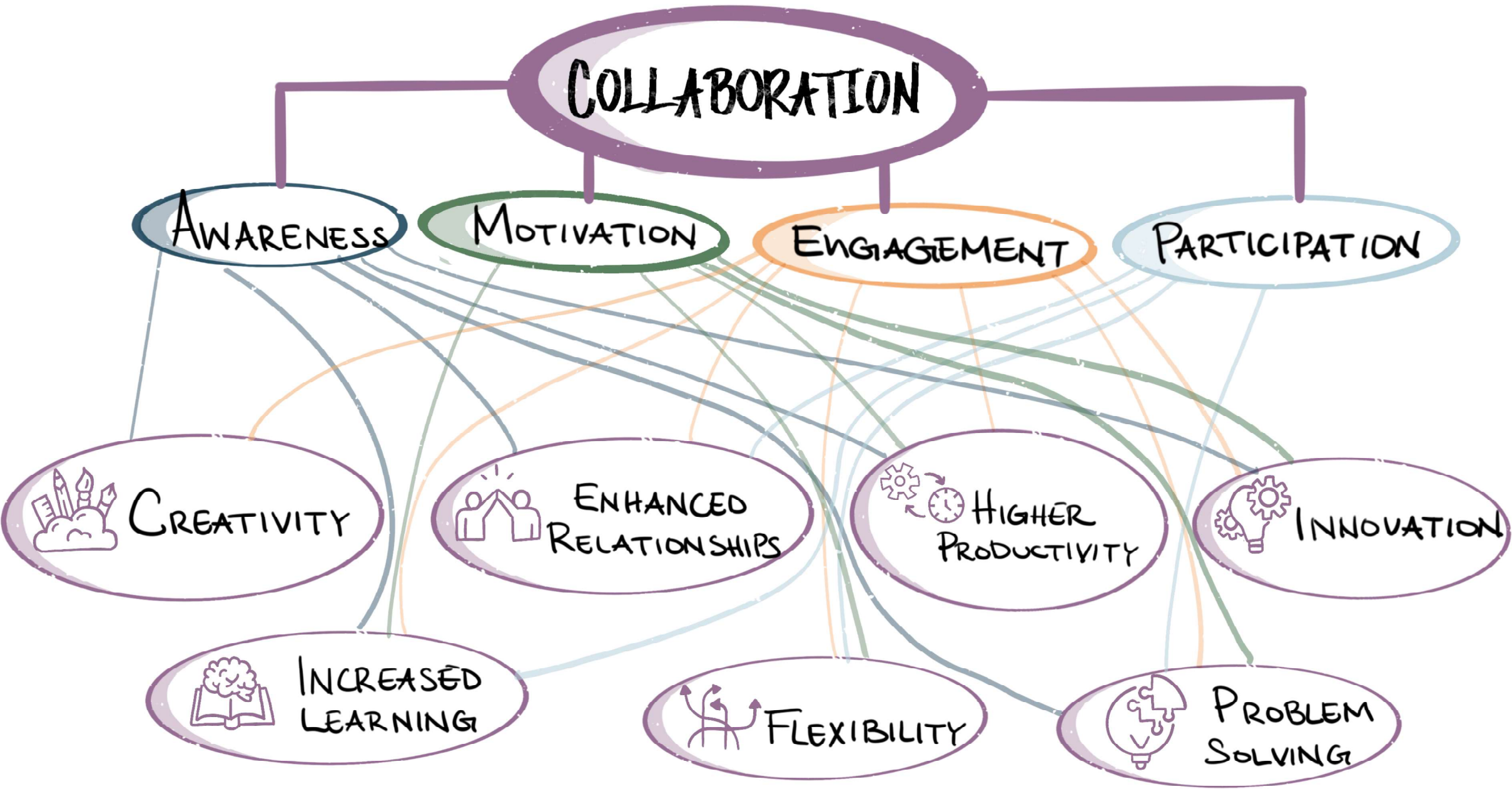
CHAPTER 4

APPLICATION

- 4.1 APPLYING MATERIAL CONSCIOUSNESS
- 4.2 BECOMING A CRAFTSMAN
- 4.3 PROGRAM BREAKDOWN

APPLYING MATERIAL CONSCIOUSNESS

In order to be sure that material consciousness is applied throughout there needs to be a large amount of encouragement to have a space of collaboration. Collaboration encourages many different positive habits that can help a beginner learn a new craft or even help a seasoned master learn new tricks. Collaboration is known to be awareness, motivation, engagement, and participation. When combined together, this comes with many different benefits that range from creativity to flexibility. Collaboration is the ultimate learning tool in terms of craft. This is an important step in learning material consciousness, as well. There is a large amount of knowledge that comes from craft that is very difficult to explain or write. This is called tacit knowledge. In order to ensure that people are able to learn new crafting habits, there needs to be plenty of space that has a collaborative atmosphere.



BECOMING A CRAFTSMAN

When learning, everyone goes through 5 stages.

Stage 1 - Unconscious Incompetence

In this stage, you are aware that you don't know anything about the subject.

Stage 2 - Conscious Incompetence

This stage allows you to begin to hold some of the knowledge of the subject, but you are not good at it. You make many mistakes and have to think through everything.

Stage 3 - Conscious Competence

Your mind has began to hold much more information. Your working a bit faster, but still need to take moments to think through your next steps.

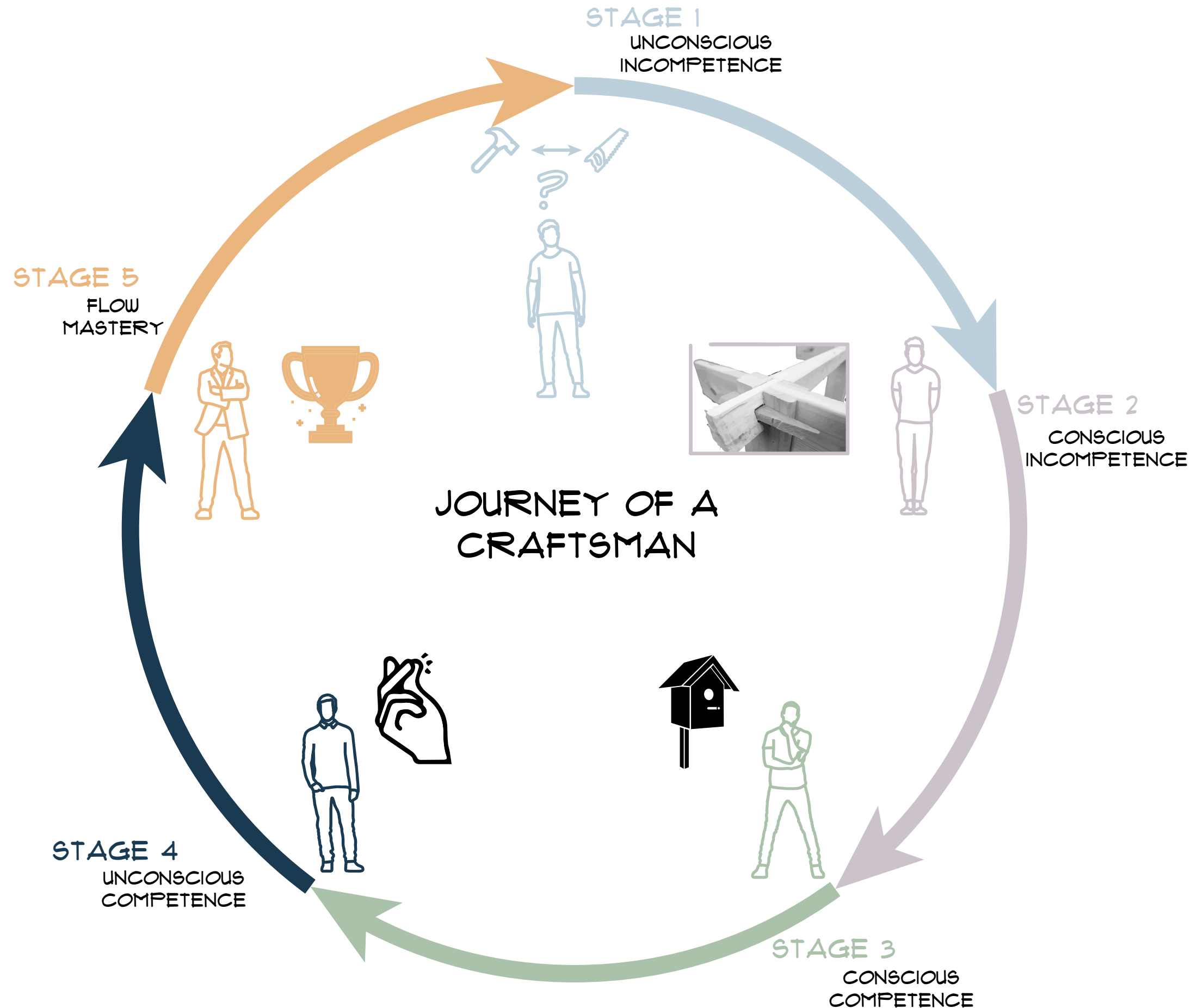
Stage 4 - Unconscious Competence

At this point, you are able to do things without thinking too much about it. You feel comfortable diving into the tasks at hand.

Stage 5 - Flow Mastery

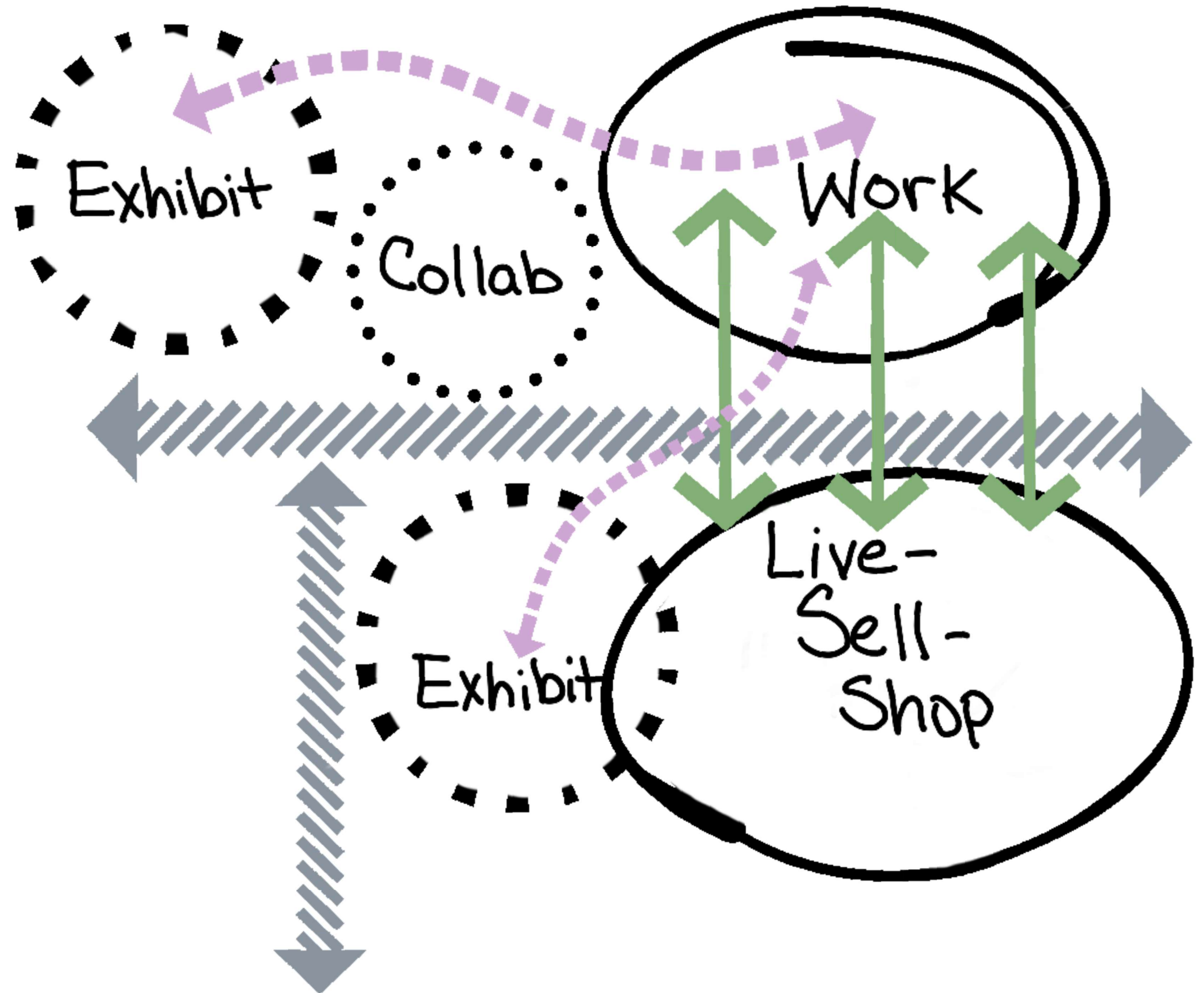
On this stage, you are a master. You are confident in all your moves and know what it takes to get to the end and are able to freely flow in your work.

When applying this knowledge to material consciousness, you become aware that a person needs to constantly be learning through the process. They need to become immersed in the subject to fully grasp the concept. In order to do so for material consciousness, the person needs to be in an environment with learning possibilities along with being surrounded by the craft.



PROGRAM BREAKDOWN

With the workshops, there needs to be an opportunity for the craftsman to display their work or to sell it. On the edge of the site that is connected to Main Street that runs through the entire town, the craftsman would be able to lease a shop and sell their makings. Following the programming that surrounds the site, there should be a section above the shops that allow for the craftsman to live in a studio style apartment. This would encourage the interaction of all the craftsman of different trades.



WORKSHOP GROUNDS

The workshops are the most central part of the design. People will be coming to these buildings to learn what it means to be materially conscious. Each workshop is focused on a specific craft. There will be glass blowing, woodworking, pottery, stone/masonry, and metal. Each workshop will be set up as a collaborative space. This will encourage proper use of tools and materials in the learning process.

LIVE - SELL - SHOP

With the workshops, there needs to be an opportunity for the craftsman to display their work or to sell it. On the edge of the site that is connected to Main Street that runs through the entire town, the craftsman would be able to lease a shop and sell their makings. Following the programming that surrounds the site, there should be a section above the shops that allow for the craftsman to live in a studio style apartment. This would encourage the interaction of all the craftsman of different trades.



FIGURE 4.1

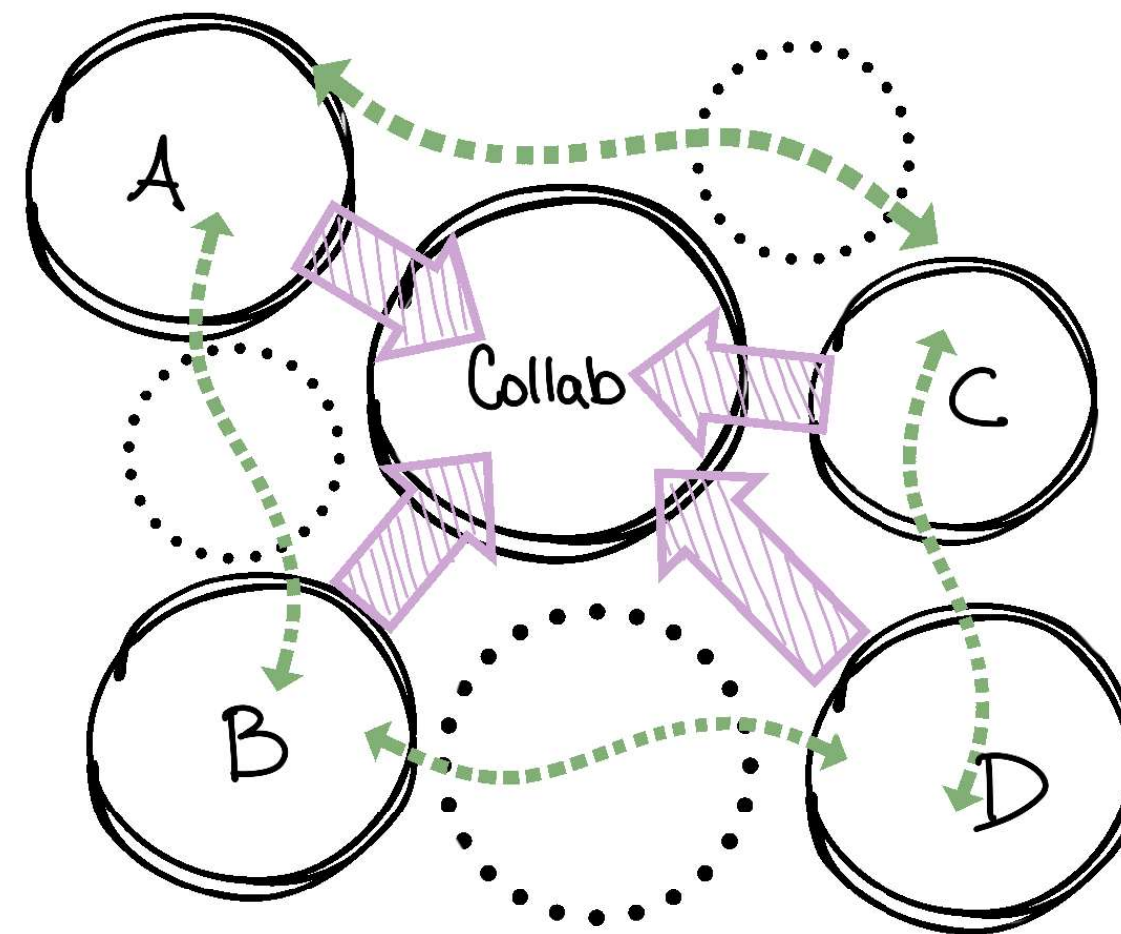


FIGURE 4.2

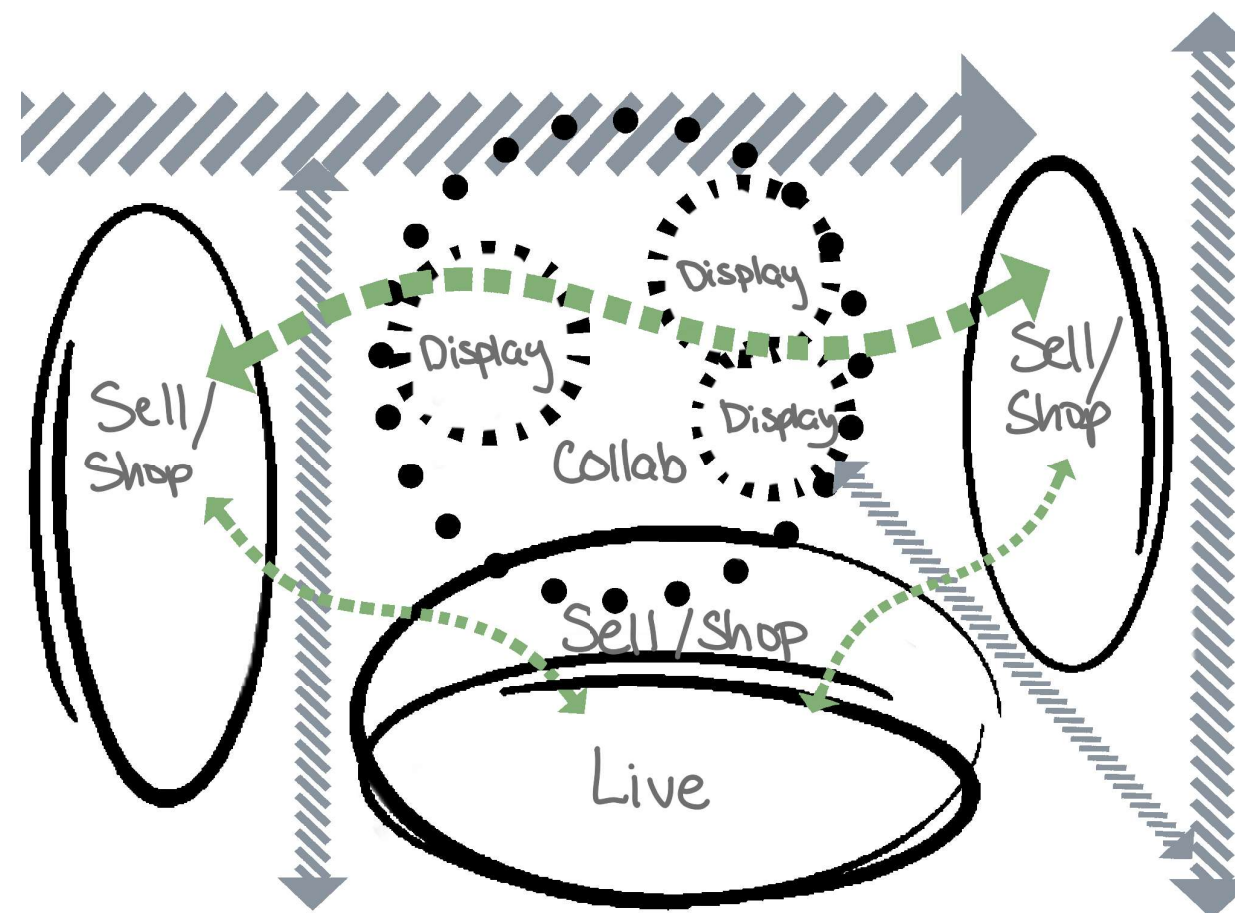




Figure 5.0
Candle Makers' Workshop

CHAPTER 5

DESIGN

4.1 SITE MASSING

4.2 MATERIAL USAGE

4.3 WORKSHOPS

4.4 MAIN HUB

4.5 MOMENTS

4.6 LIVE | SHOP | SELL

4.7 GALLERY

SITE MASSING

Breaking down the site programming ended up with three different categories. Retail/Living, gallery, and the workshops. With the retail/ living at the main entrance of the site, there brings the potential to bring people in from the main street that runs through downtown Blacksburg. The workshops would be close by for the craftsman to have the option of either purchasing supplies, selling their own work, or living close by for their benefit. The site would have plenty of options for the craftsman to show off their work whether it be exterior or interior space. Along with everything else, storage is a major priority on the site.

- RETAIL / LIVING
- GALLERY
- WORKSHOPS
- TRANSITIONS



MATERIAL USAGE

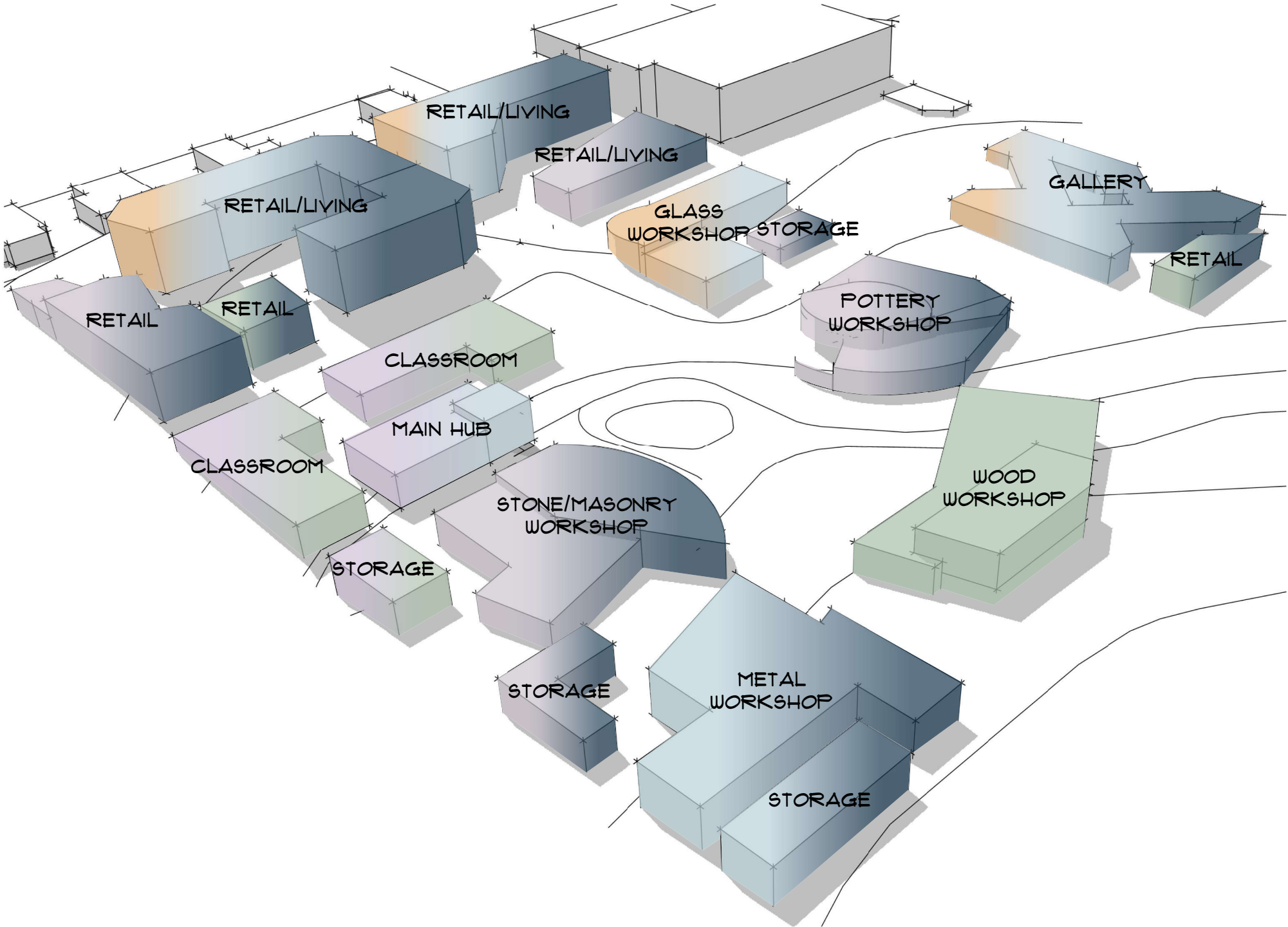


FIGURE 5.1

STEEL

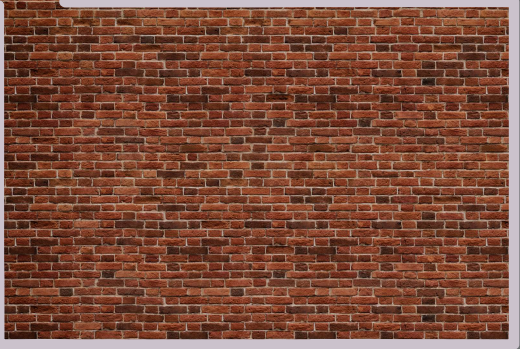


FIGURE 5.2

BRICK/
MASONRY



FIGURE 5.3

TIMBER

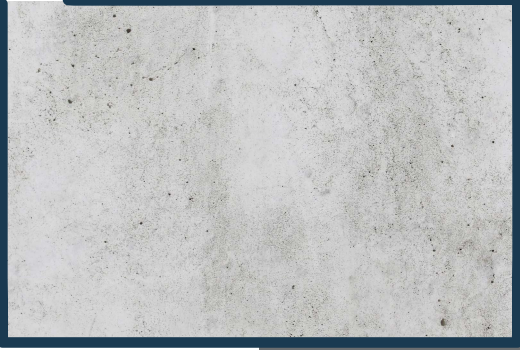


FIGURE 5.4

CONCRETE



FIGURE 5.5

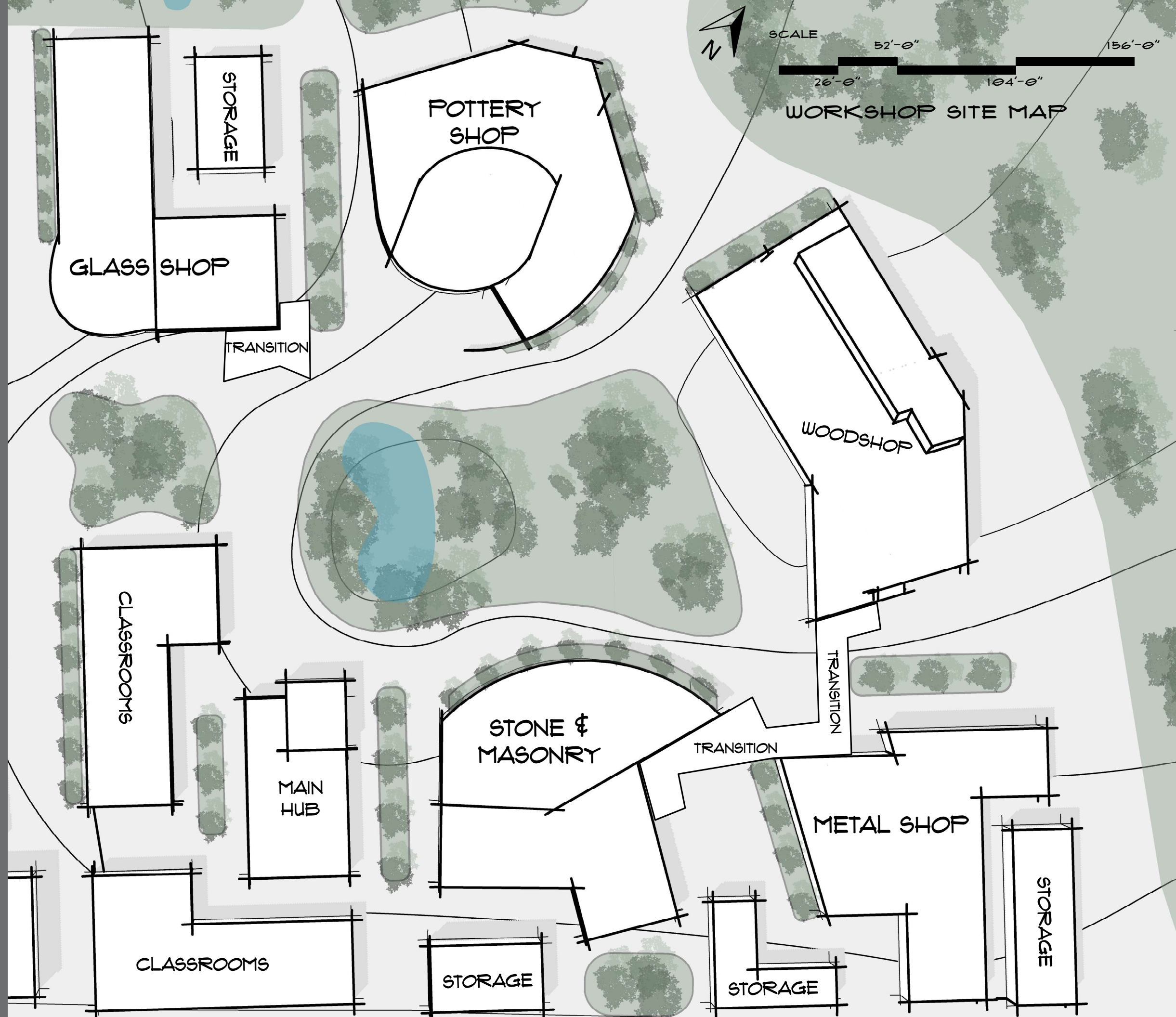
STAINED
GLASS

WORKSHOPS

Each of the workshops focus in on a different craft. These crafts include glass making, pottery, woods, stone and masonry, and metal. Each of the workshops gives enough tools and space for the craftsman to explore and expand their knowledge on the subjects. The workshops would also offer opportunities of classes where people could come and learn the basics of each of the crafts before diving into the workshops.

Pushing for a collaborative environment, there would be a central park that allows people to display their work or even work on their crafts outside on beautiful days.

Each craft requires an extreme amount of storage, with this in mind, there would be multiple different storage buildings that would be open to each of the crafts in order to store materials, projects, or whatever is needed.



TRANSITIONS

With collaboration in mind, there needs to be moments that would be outside of the workshops as a person moves from one workshop to another. These moments of thresholds encourage material consciousness in the craftsman. This also encourages a collaboration of the crafts that gives the opportunity to create more. Inspiring creativity, material consciousness, and tacit learning.

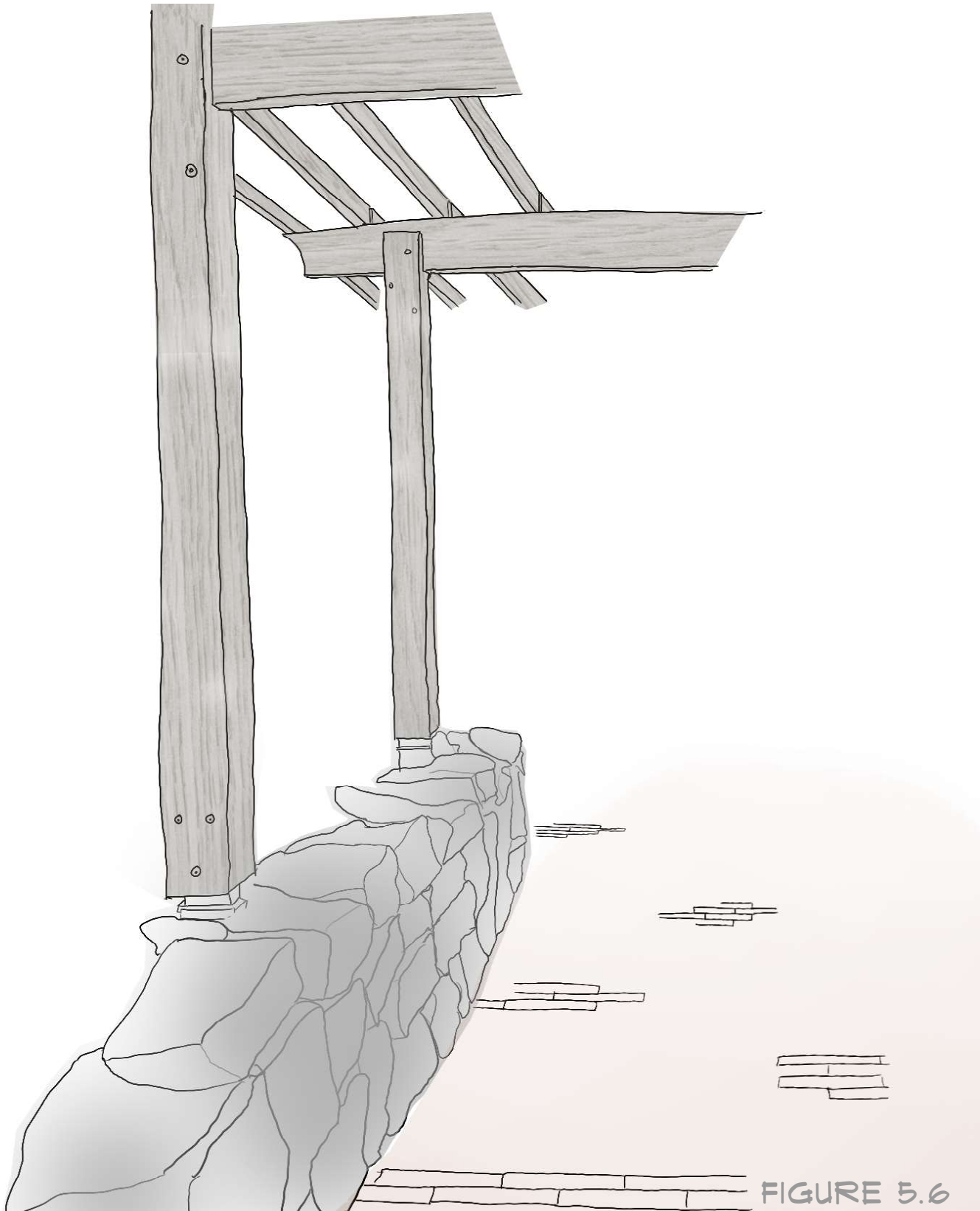


FIGURE 5.6



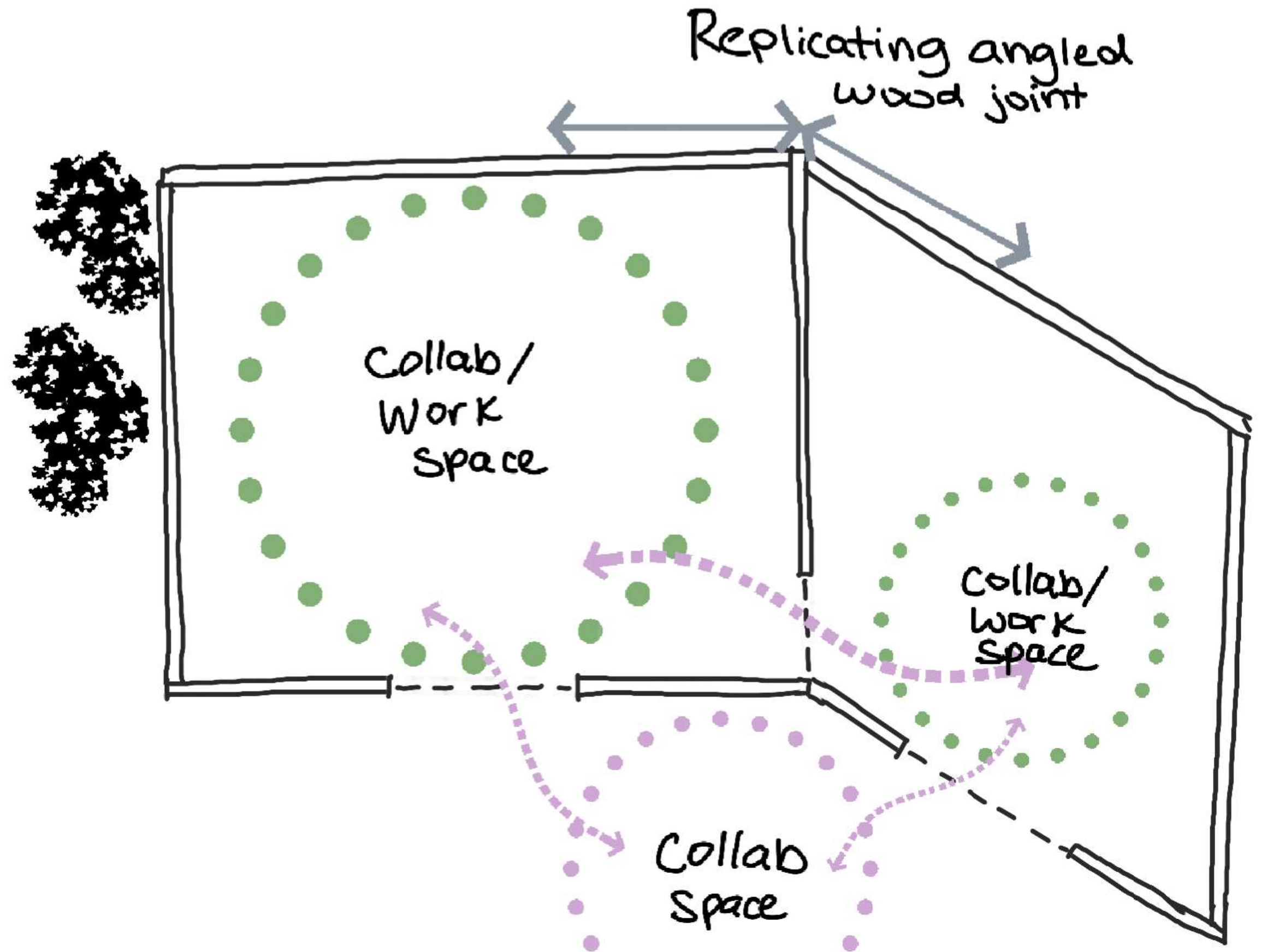
FIGURE 5.7

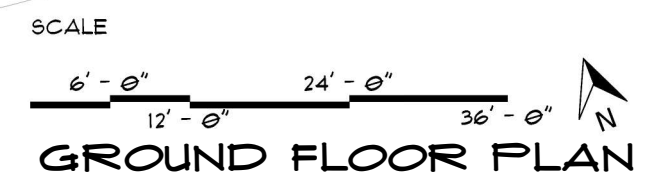
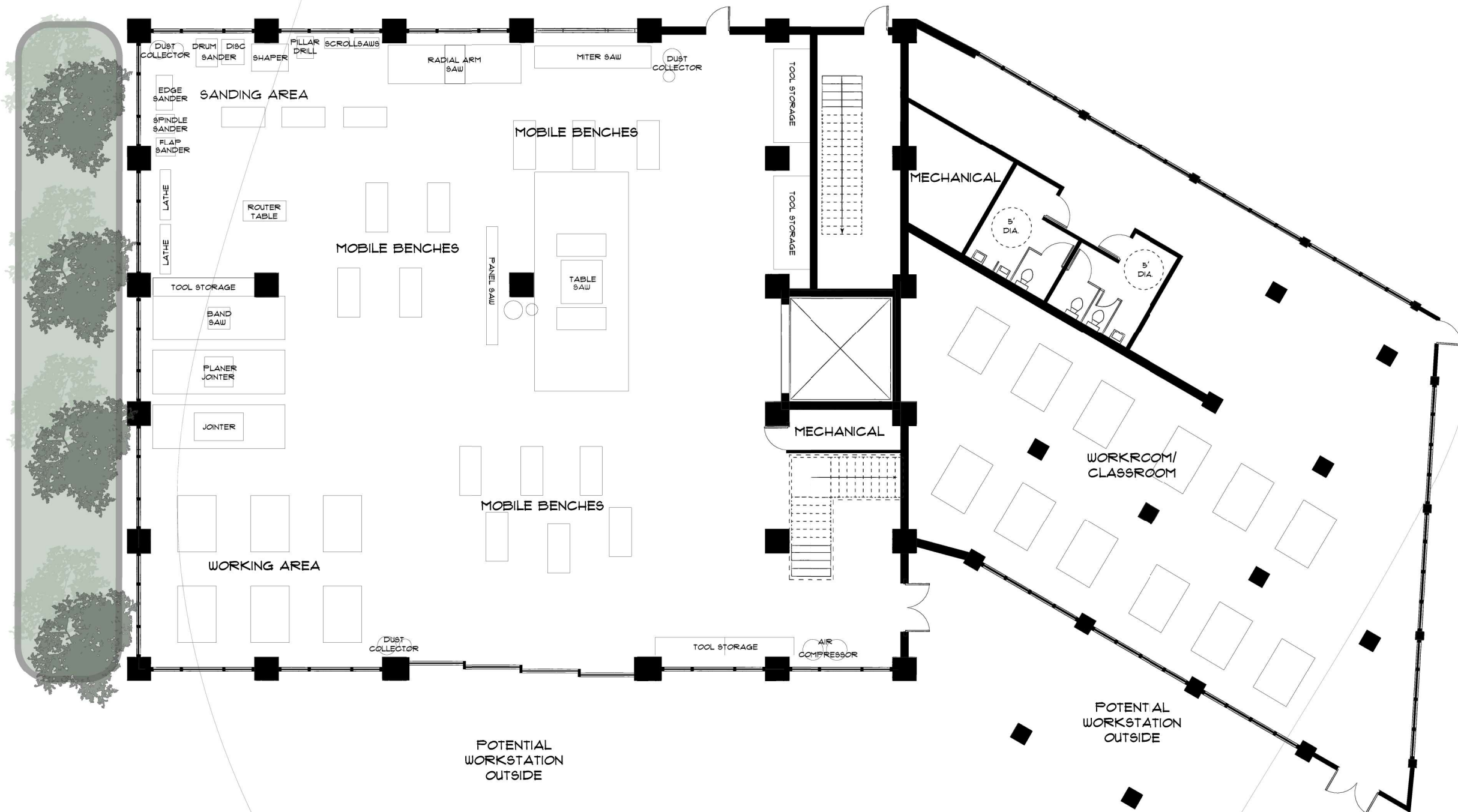
WOODSHOP

Working in a wood shop could usually mean to stick with your own project and get it done by yourself. This would not benefit all people though. They might use tools incorrectly and not understand what the material is capable of. While designing the workshops, I kept in mind the idea that collaboration could hugely benefit everyone involved. Each of the spaces to work in the structure would allow people to be involved with those surrounding them.

The structure was meant to replicate a wood joint that was then pushed to a new limit when angled. This would push the structural limits of connecting the two angled points to become a joined full building.

Each of the collaborative/work spaces on the interior would encourage its users to be a part of each others work. The spaces are meant to be transitioned from one space to the other. The bigger collab/work space being the space with all the heavy machinery for the building, while the smaller would be for work benches or occasional class spaces. The exterior space would allow for people to be more involved with the natural elements surrounding the site, which encourages more collaboration with passer-byers.





With the woodshop being so heavy in its use of machines, the option to create openings at the top of the main workshop would allow the heat to be move swiftly out of the space. The extended roofs would help to keep rain out during the wet seasons.

The detail to the columns and beams show the intricacy in the design to benefit the timber and push the material into an innovative way of supporting one another. The design was also influenced by Yusuvara Town Hall because of the architects and structural engineers understanding of the possibilities of timber. Because of this design, a person who is learning or even a seasoned woodworker would look onto the design as a source of inspiration. Whether the inspiration is seen with fresh eyes of desire to achieve those levels or in a distasteful frustration of wanting to do it better. This structure would elicit outcomes of material consciousness due to those thoughts.

COLUMN & BEAM
DETAIL

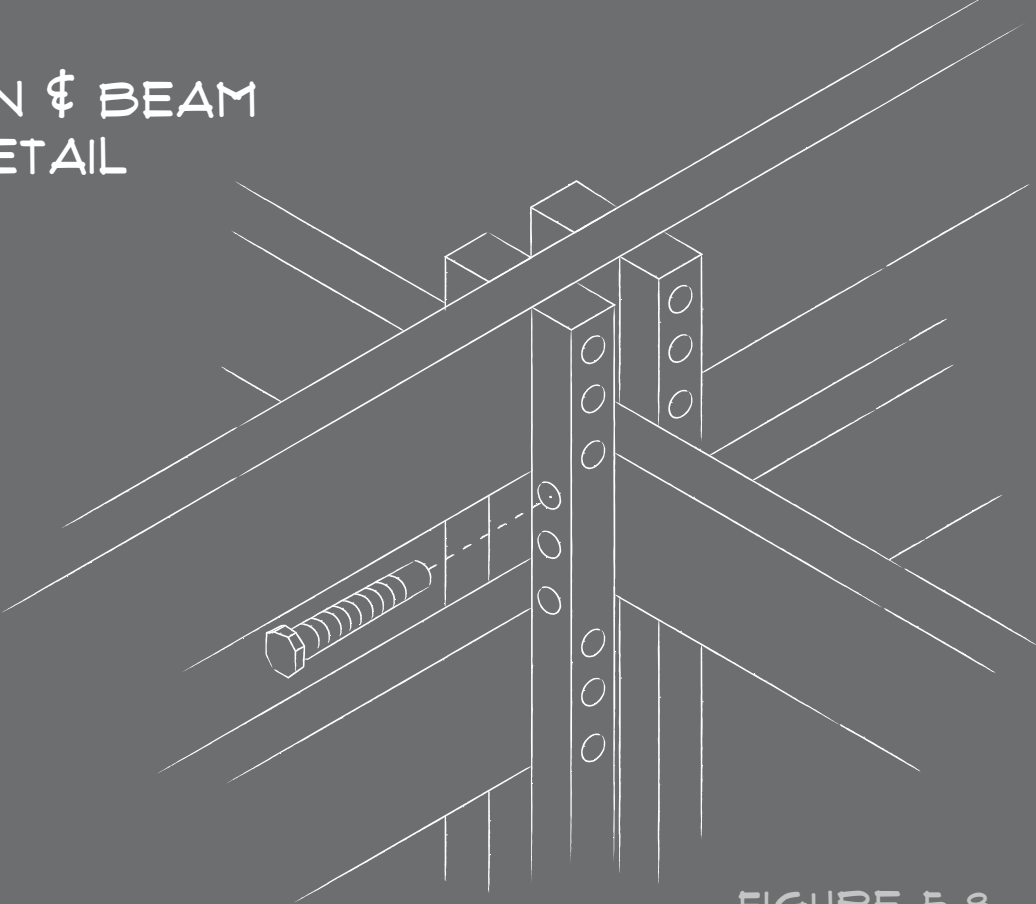
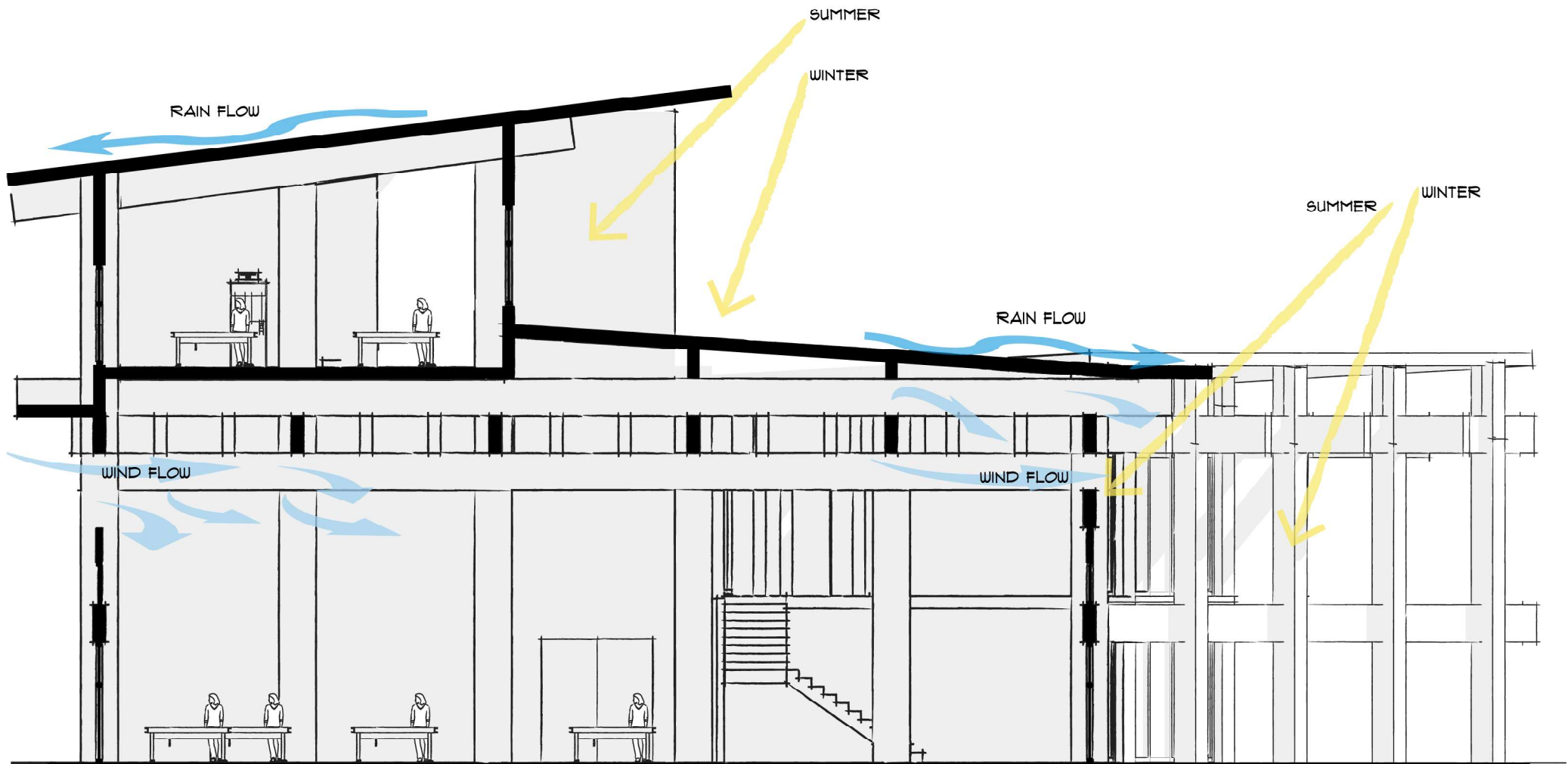


FIGURE 5.8

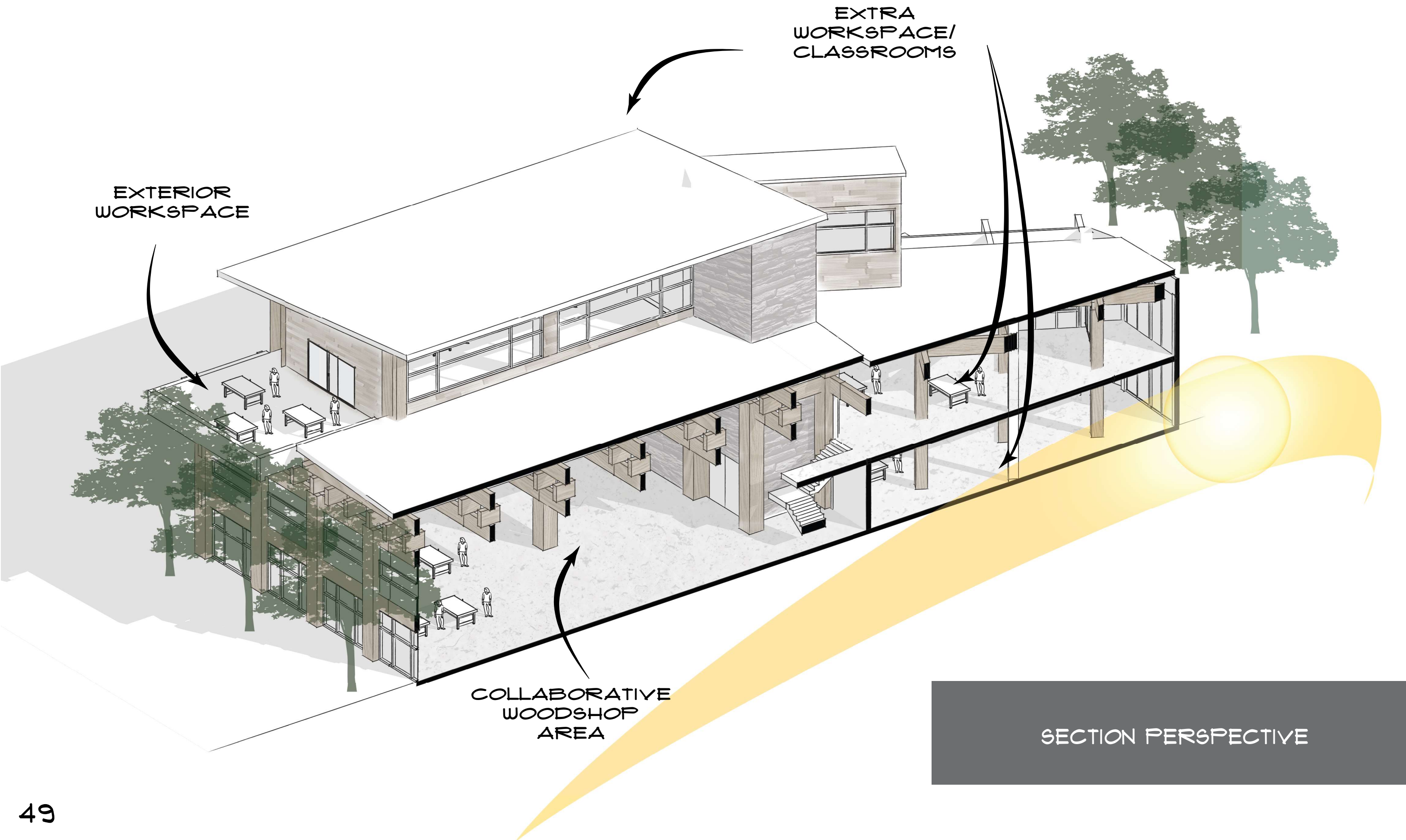




NORTH ELEVATION

MATERIAL CHOICES

In order for the person to achieve material consciousness, they would have to be surrounded in the material that they are trying to use. By being in a structure that is built from this material, the person is learning about the potential outcomes of the material. The material used in the woodshop would be timber that is structured in a way that is pushing the property of the material to its limits. This encourages people from different stages of their learning to take a moment and apply their knowledge to the structure.





TOP WORK SPACE OF WOODSHOP



GROUND FLOOR MAIN
WOOD SHOP AREA

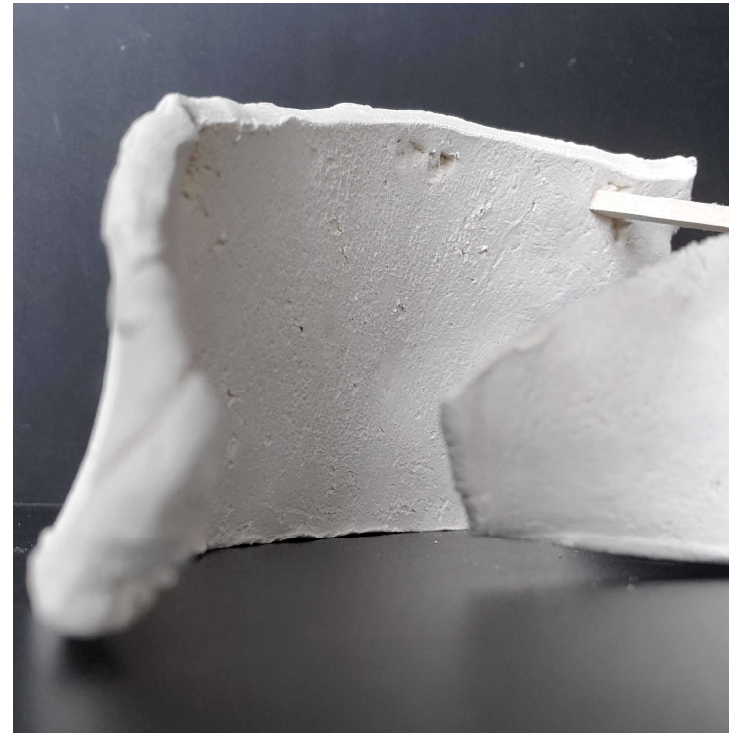


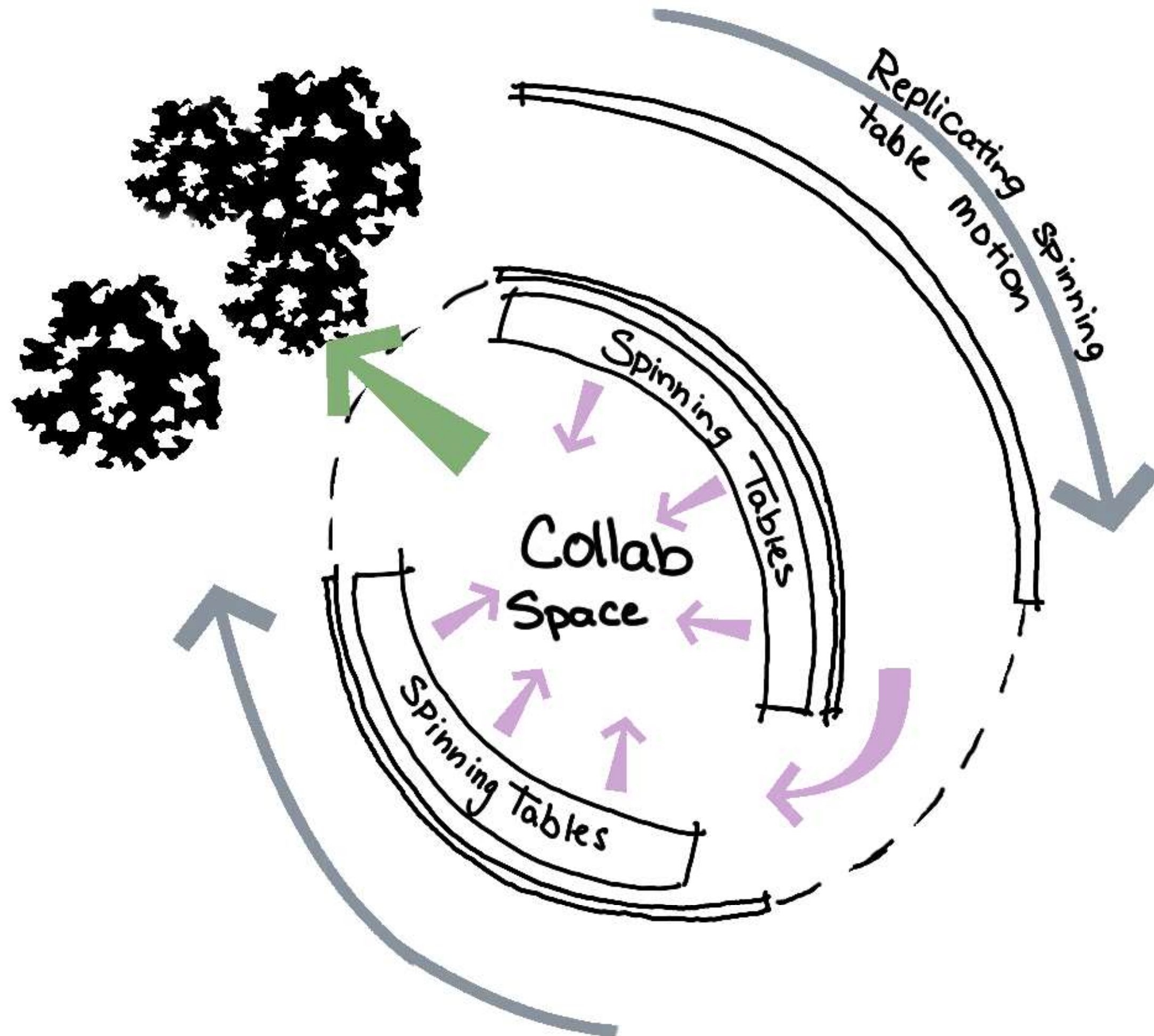
EXTERIOR VIEW OF WOOD
WORKSHOP

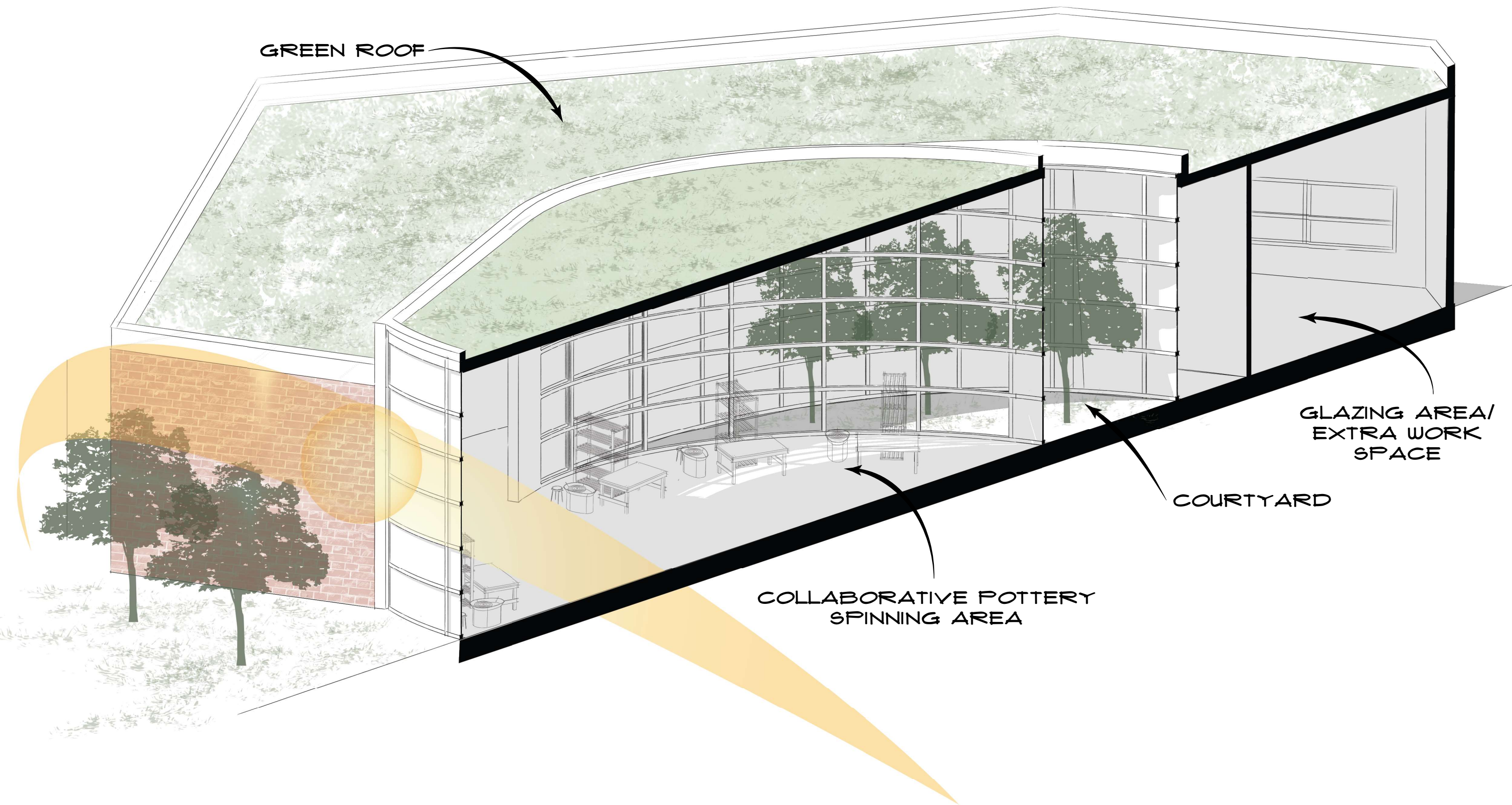
POTTERY WORKSHOP

Focusing in on the pottery workshop, the objective was to create a structure that resembled the material that would be used for this craft. Starting out with actually sculpting clay in a model, I was able to become connected with the material and understand its properties better. This would then create a moment in the structure that would allow people to feel connected with the materials they themselves are using with their hands.

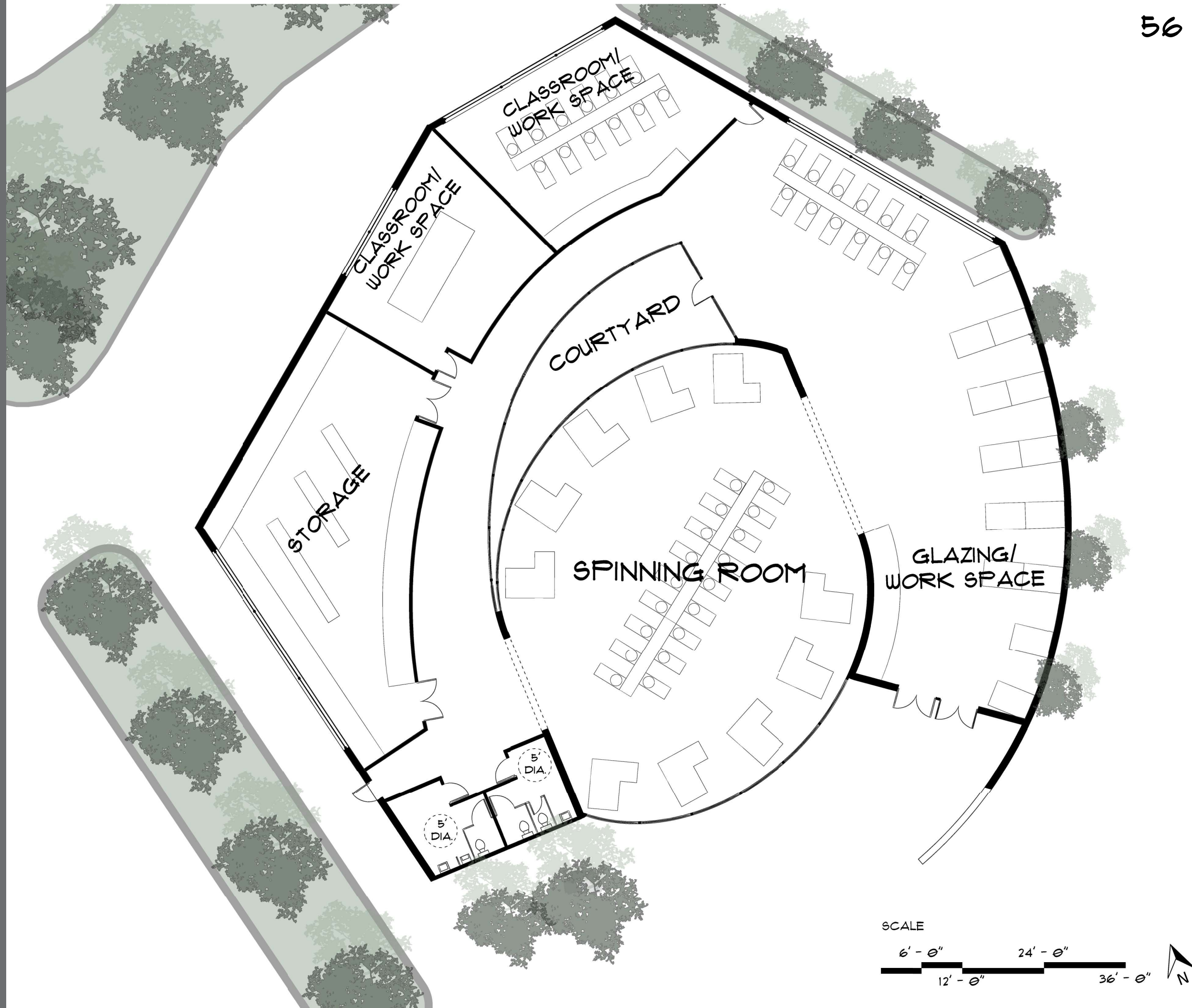
I attempted to create a movement with the material that resembled the spinning wheel that pottery makers use a great deal. This would be the focus for the design.

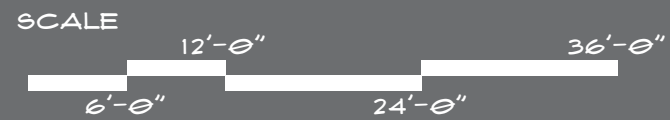






This workshop would focus on collaborative moments throughout the process of creating. The spinning room would be the main focus as people would be able to collaborate and be creative with one another. A large portion of the structure would be dedicated to storage as pottery needs it. There would be opportunities for people to come and learn the craft with classroom spaces available, but when those are not happening, the classrooms would be open for people to use freely in case there are not enough available spinning tables in the main room.





WEST ELEVATION

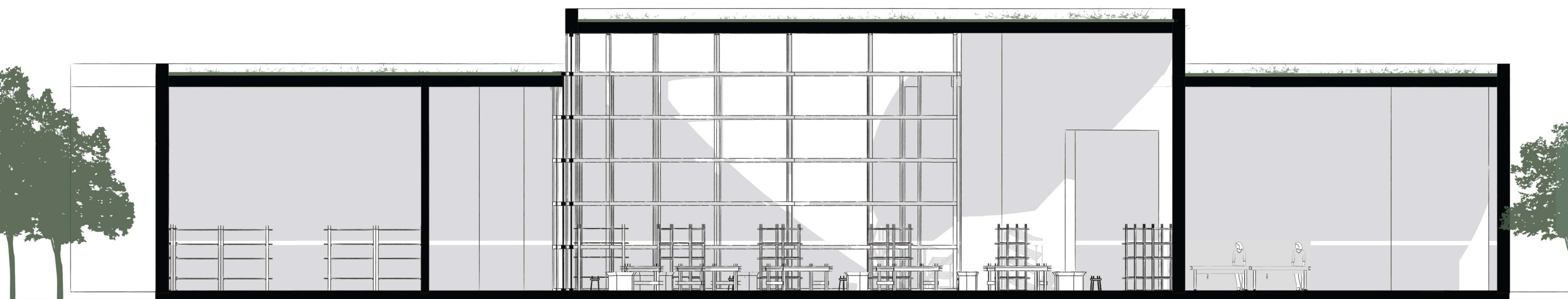
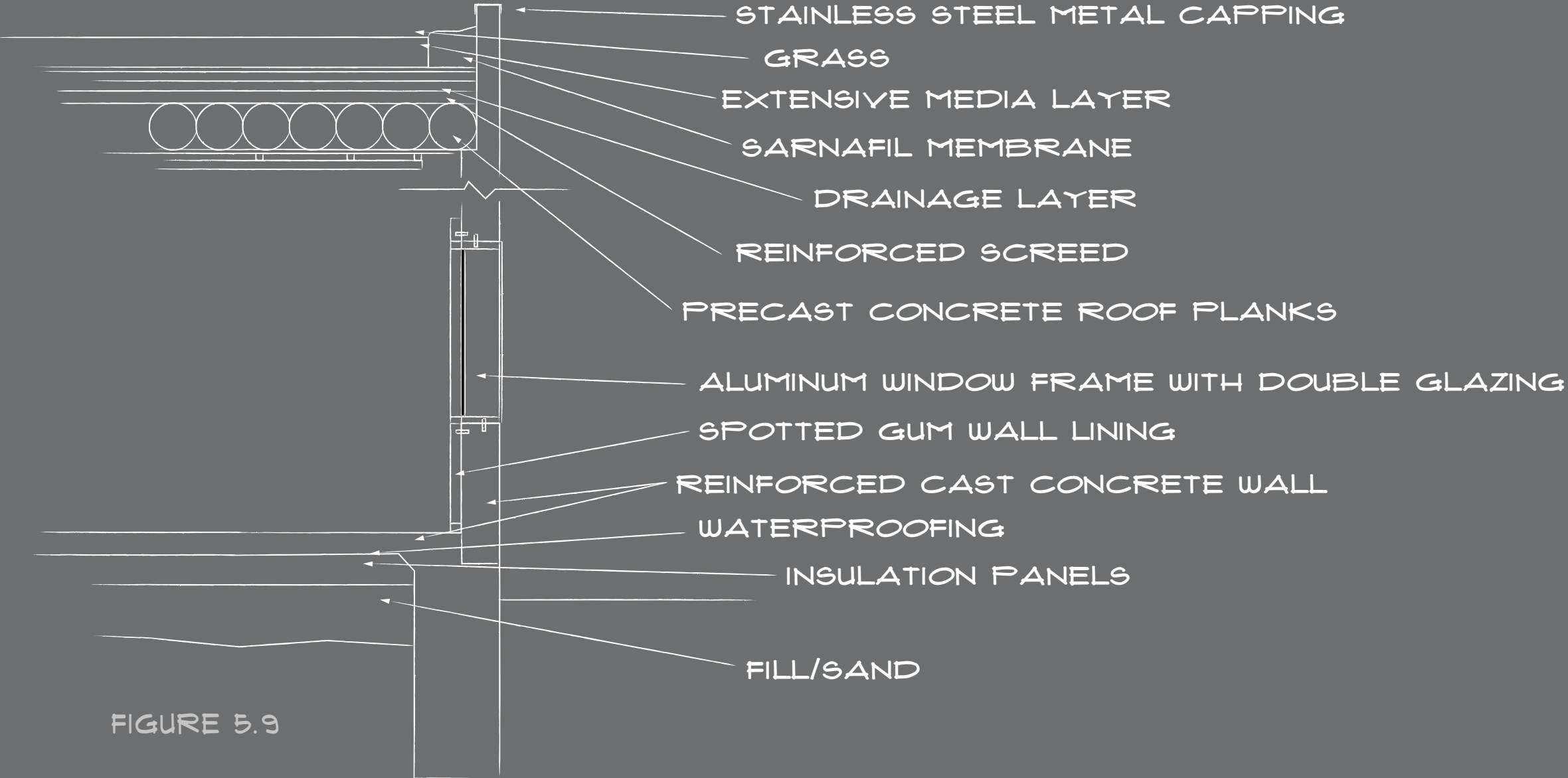
MATERIAL CHOICES

The pottery shop would be both brick and concrete. The brick would help connect the structure to the already existing red brick structures in the city of Blacksburg. This would be important to connect the village with the rest of the city to find a harmony. The village needs to appear as though it belongs in the city and respect the culture and style that already exists there.

The concrete would be a representation of the molding clay that will be used inside the structure. This would be easily replicated as concrete is a smooth surface that holds the same visual properties as clay. For the curving walls, this would be a perfect material to fully emphasize the shape.

SECTION DETAIL OF CONCRETE WALL AND GREEN ROOF

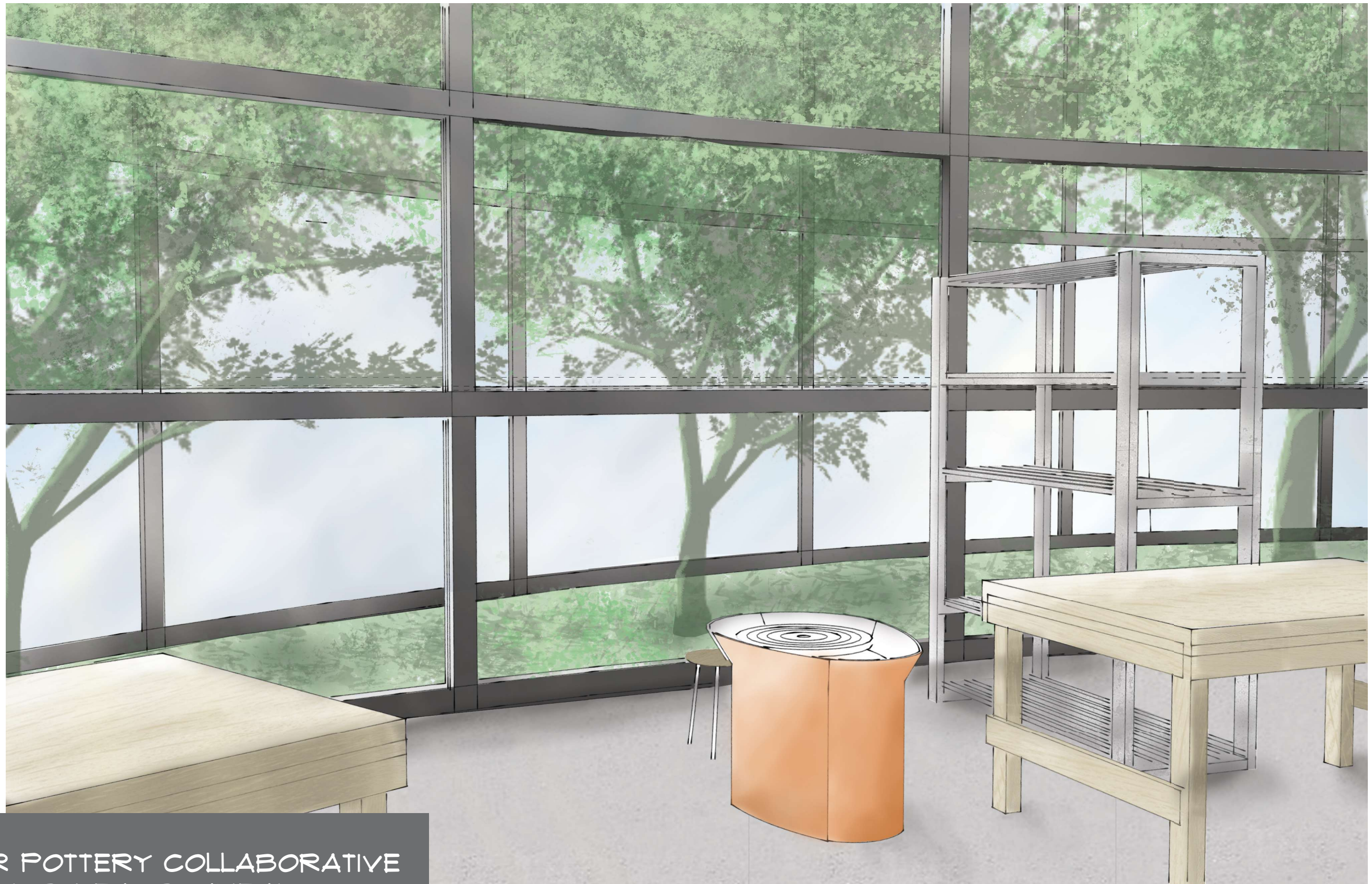
Due to the many positive benefits that comes with having a green roof, the pottery workshop will have the advatage of its many uses. The green roof would help reduce the rainfall in the site, purify the air, regulate the interior temperature, among other things.



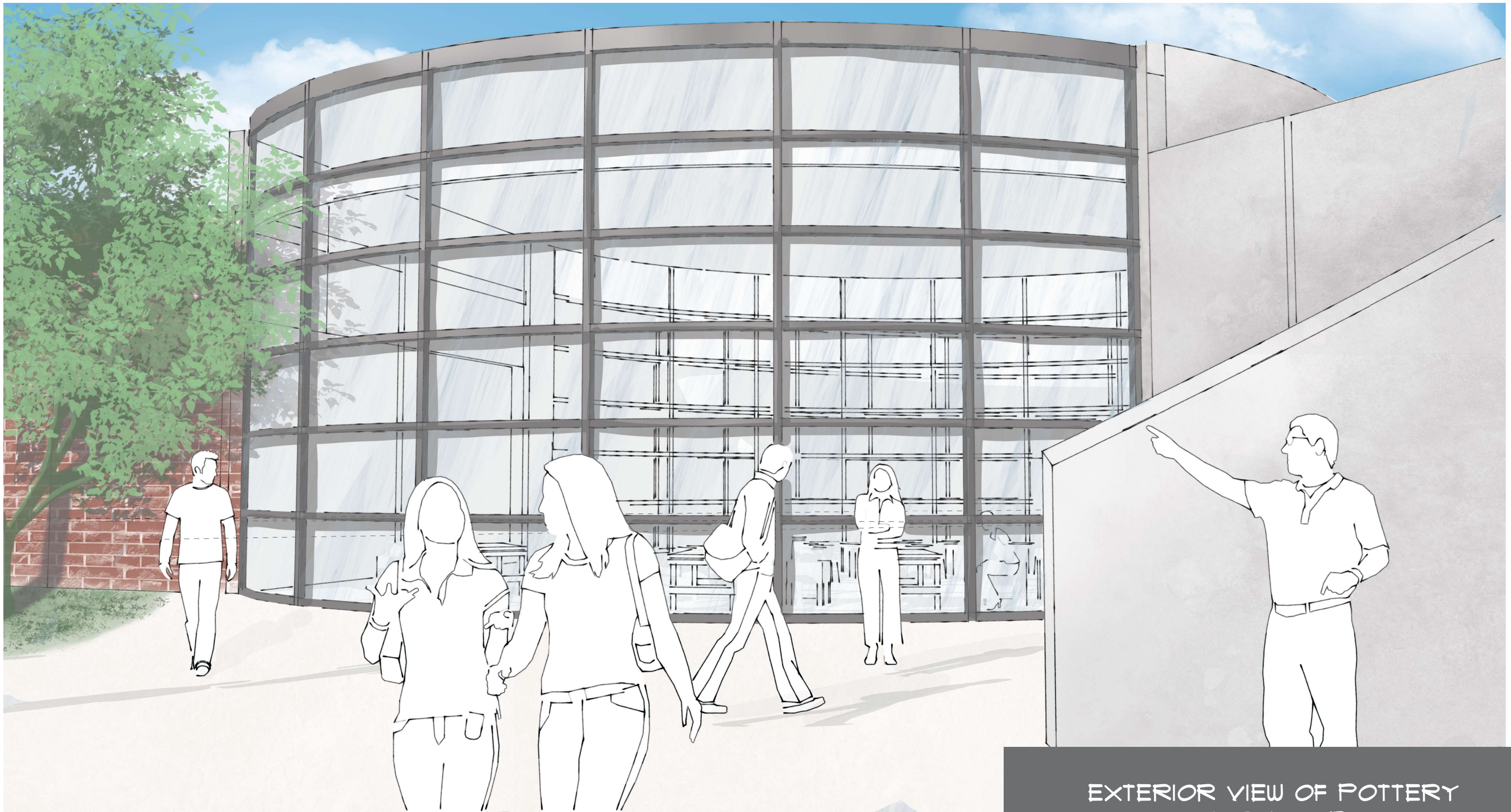
WEST SECTION



COLLABORATIVE WORK
ENVIRONMENT



INTERIOR POTTERY COLLABORATIVE
WORK ENVIRONMENT



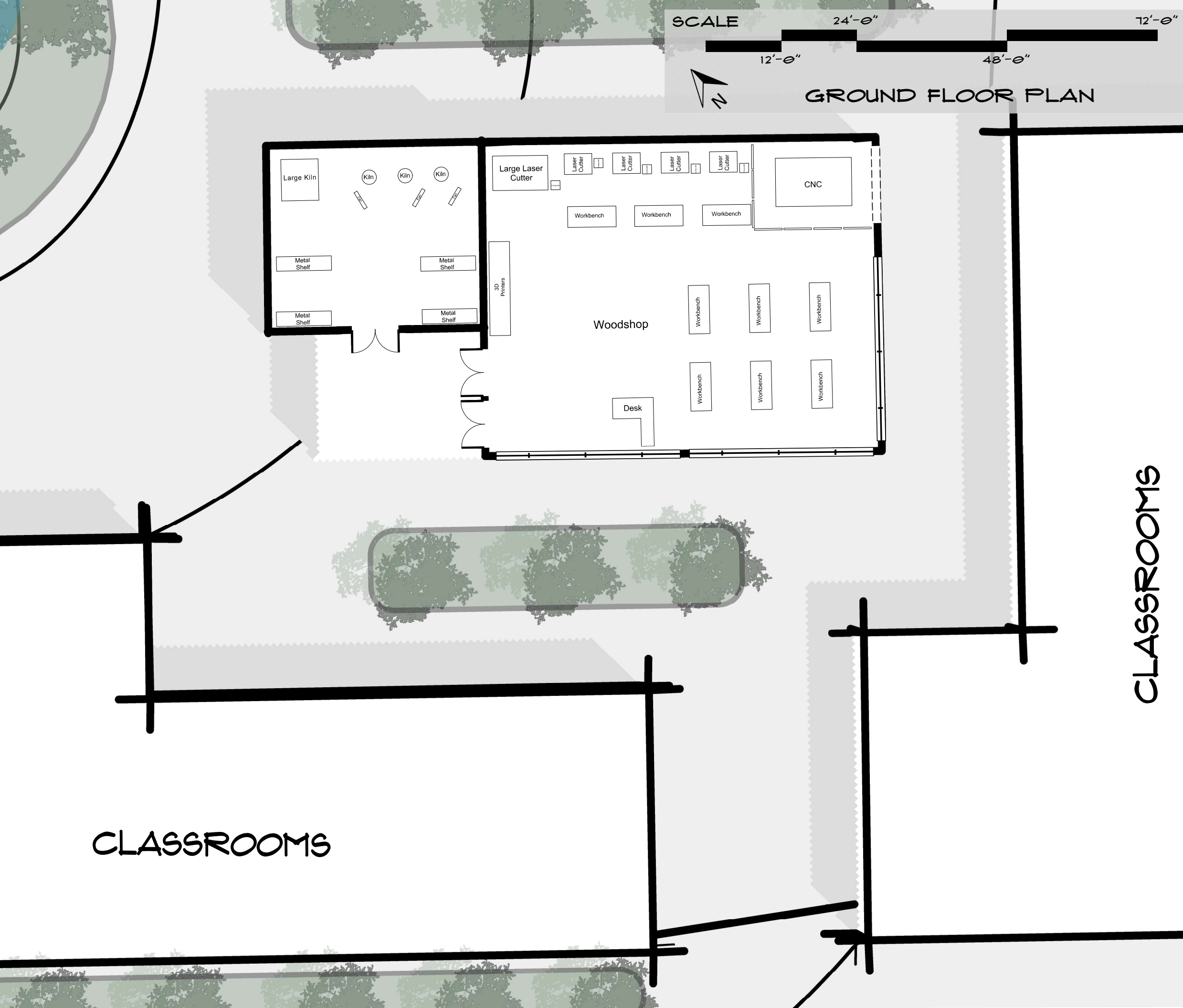
EXTERIOR VIEW OF POTTERY
WORKSHOP



POTTERY WORKSHOP AND WOOD
WORKSHOP EXTERIOR VIEW

MAIN HUB

Due to the fact that the equipment for the workshops (the kilns, laser cutters, and CNC) are high for fire hazards, putting them in a central hub would be better for the consistency of fire safety regulations. This gives people a place to for easy access on the site as its location would be central to the rest of the workshops. Placing all classrooms within the building would then create a type of main building in the site for many people to access. Provides any tools necessary to complete a project with close proximity to any other workshops necessary.



MOMENTS

Throughout the site, there needs to be an attention to the materials that are being used in order for people to become more aware. Designing the structures with material consciousness would show an awareness to the material that would get people to notice these moments. They would question the durability, functionality, and potential of the materials that would encourage them to push the limits of the materials themselves. Once they start becoming more material conscious, these moments will begin to speak louder to them.

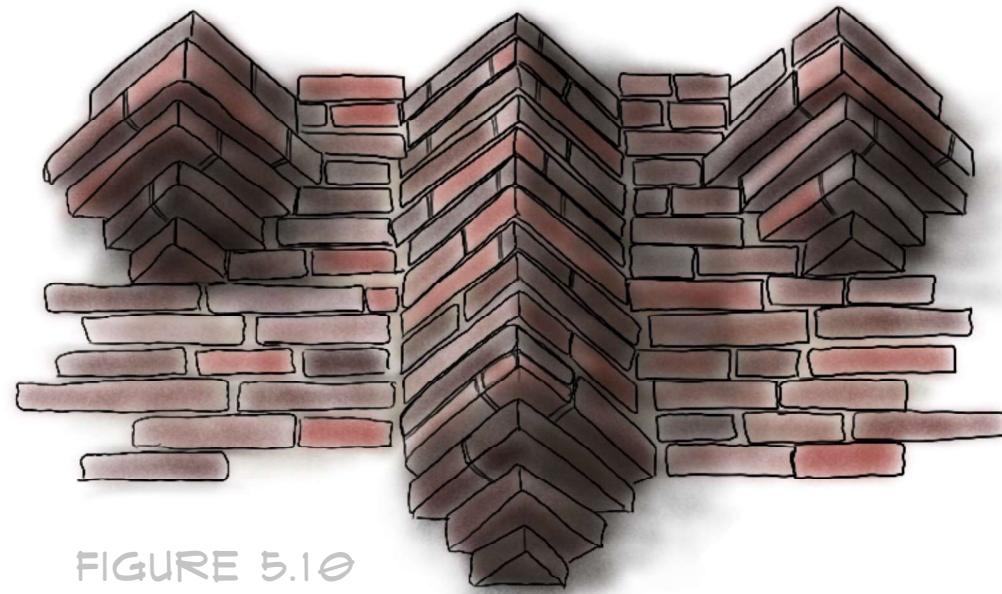


FIGURE 5.10

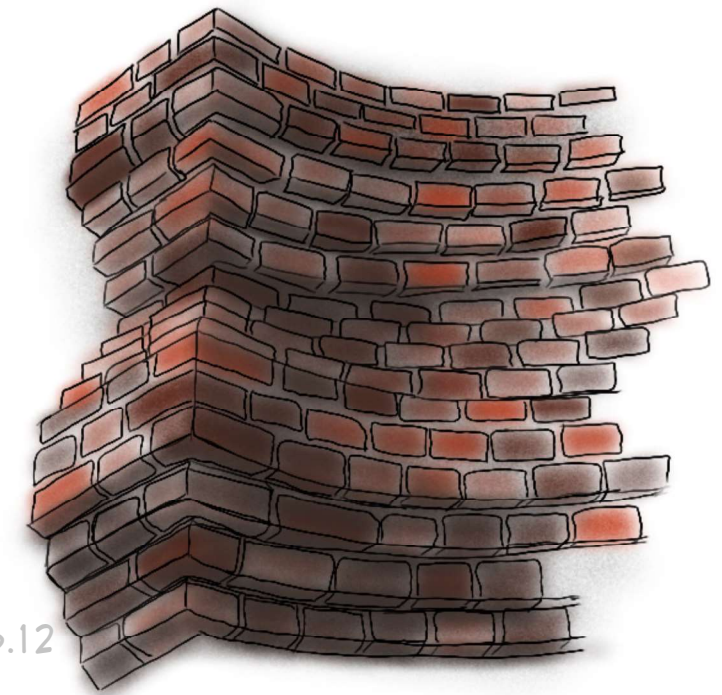


FIGURE 5.12

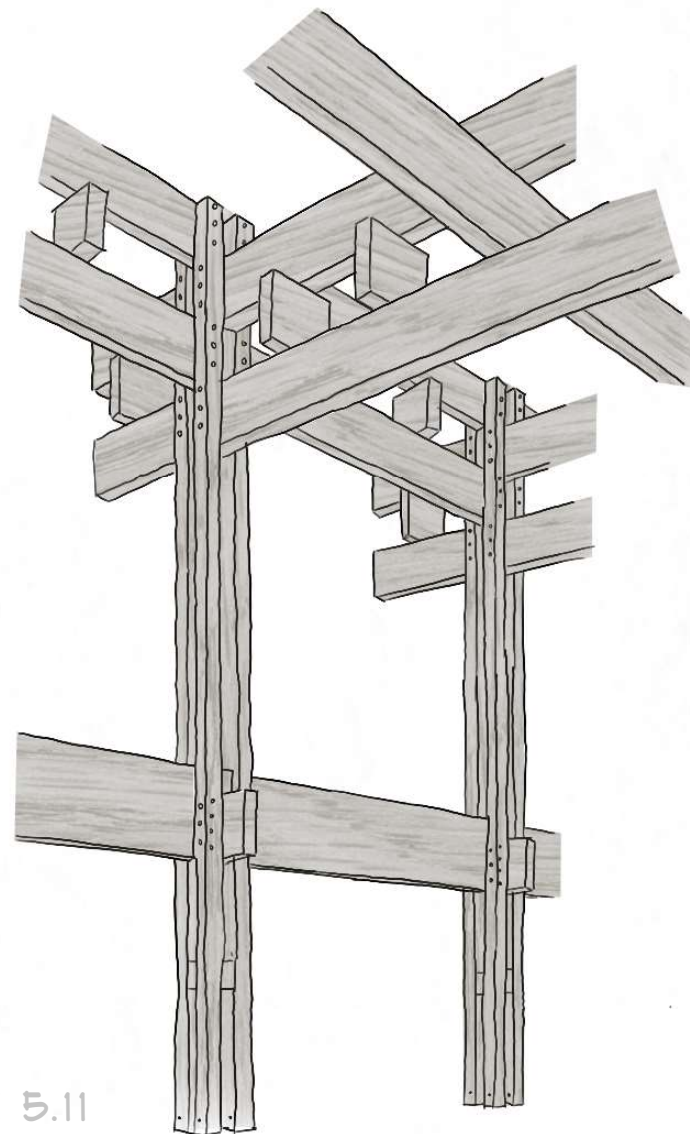


FIGURE 5.11

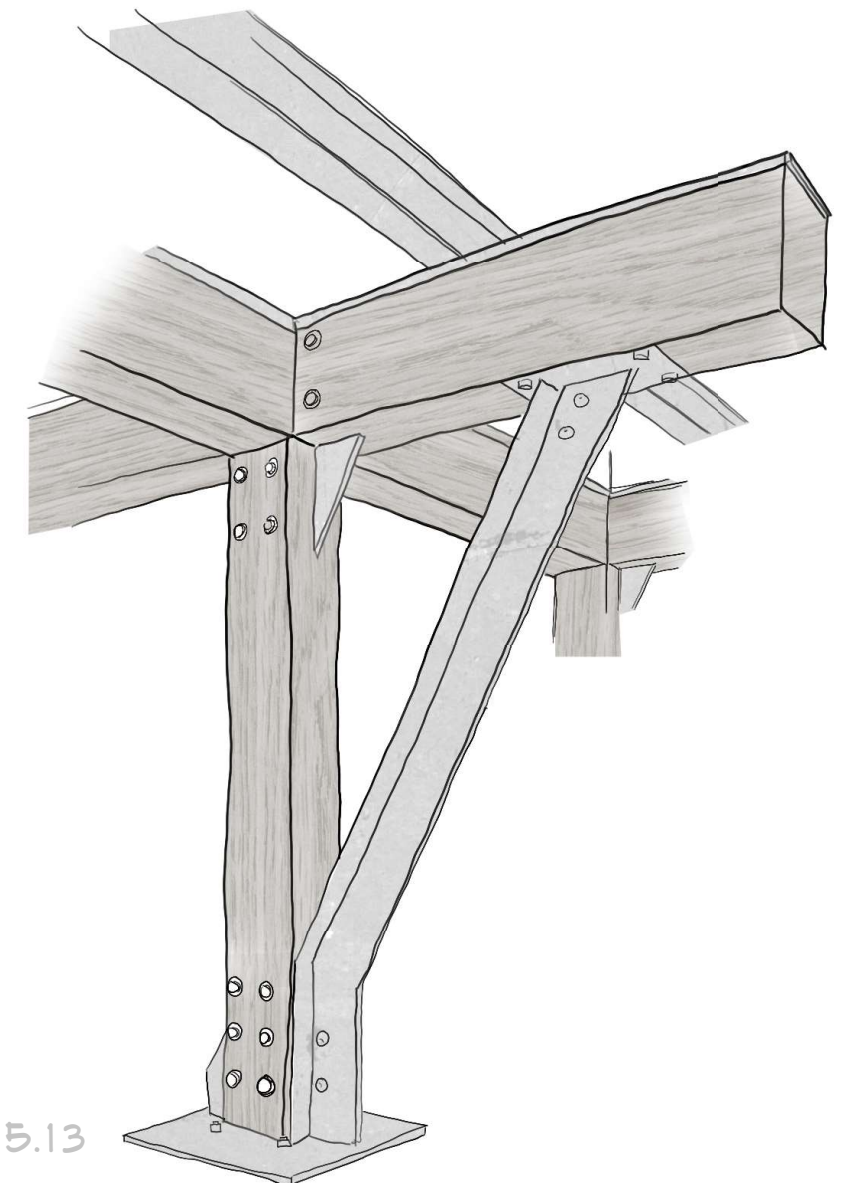
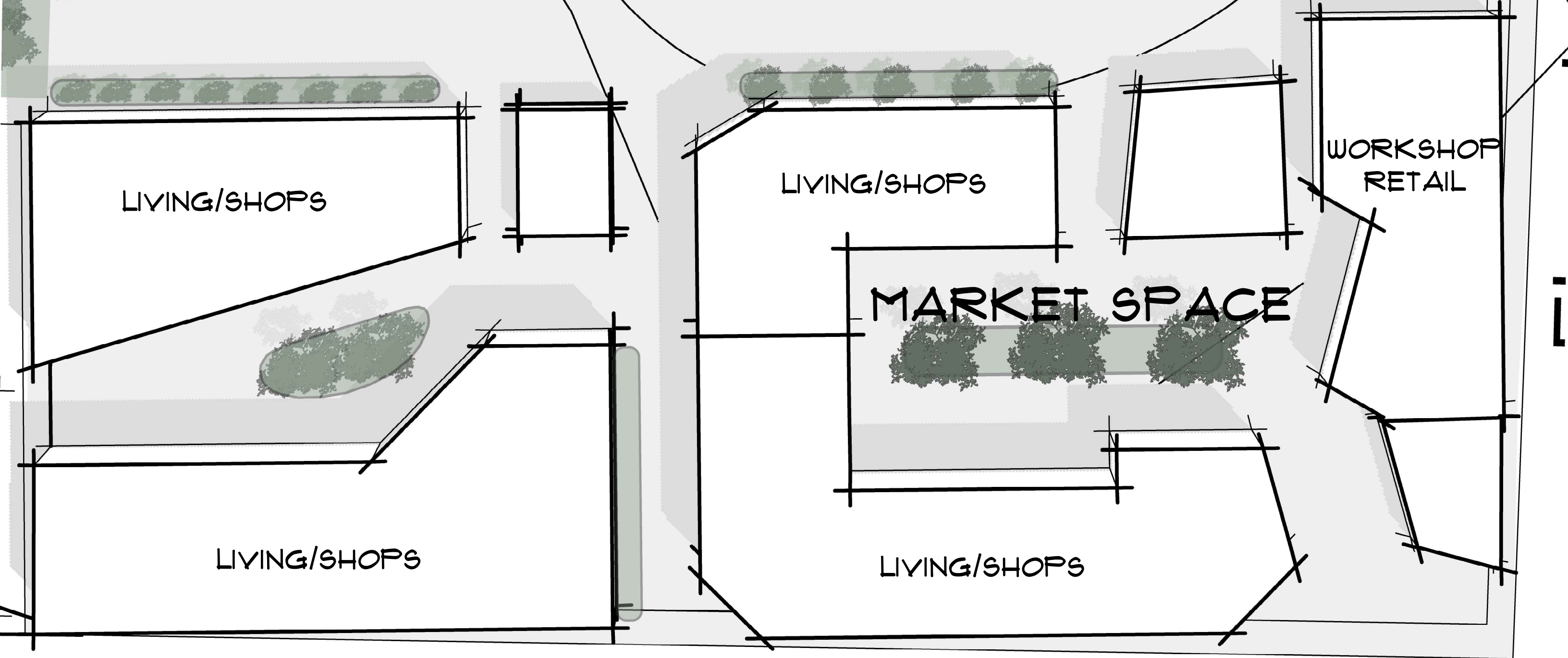


FIGURE 5.13



LIVE | SELL | SHOP



Workshop Retail

With the workshop retail, there would be an opportunity for the craftsman to sell their wares without needing to go through the hassle of leasing their own store.

Shops

Having retail at the front of the site will encourage people to enter and inhabit the space. With the luxury of being straight off of Main Street that has busiest foot traffic, there will be no shortage of shoppers to purchase the craftsman's work.

Market Space

During the summer months, the town of Blacksburg has many events that offer artists to get recognized. This space would help bring attention to the craftsman of the town.

Living

Blacksburg has many events that support artists and showcase it through festivals and art walks. Entire streets are shut down and tourists come to visit to experience it. The town lacks the accommodations for the tourists. With these lodging options, they will serve as a short term dwelling for people along with being available to the craftsmen.

GALLERY

The main gallery on the site would be home to many different types of art. Showcasing crafts such as metal, stone carving, woodwork, etc. Different type of lighting options, even with an exterior gallery space provided. The work would be displayed for anyone to enjoy. In addition to displaying art, there are different sized studio spaces that would be available to lease for people to be able to create art as well. This would be focused on crafts that had minimal media such as photography and painting.





Figure 6.0
Sword Makers' Workshop

CHAPTER 5

FINAL THOUGHTS

5.1 FUTURE CONTINUATION OF RESEARCH

FUTURE CONTINUATION OF RESEARCH

When continuing this thesis research, one might look further into the application of material consciousness and the connection it has with the environment that is built around us. This may help for a better understanding of the affect that the materials may have on people. This may be seen in an artistic output sense or in a way that allows people to create spaces that encourage certain behaviors and emotions.

For the continuation of the site, one might look to apply a type of structural rules that allow people to create what they think is necessary, without losing the integrity of the existing structures. This can benefit by keeping the principles that were instilled and meant to keep intact through expansion.

Focusing on the needs of the craftsman and the city it involves is incredibly important for a project such as this. If there is a disconnect between the two, there is a potential of a major failure. Considering what the craftsman and the citizens need in order to find that harmony is vital.

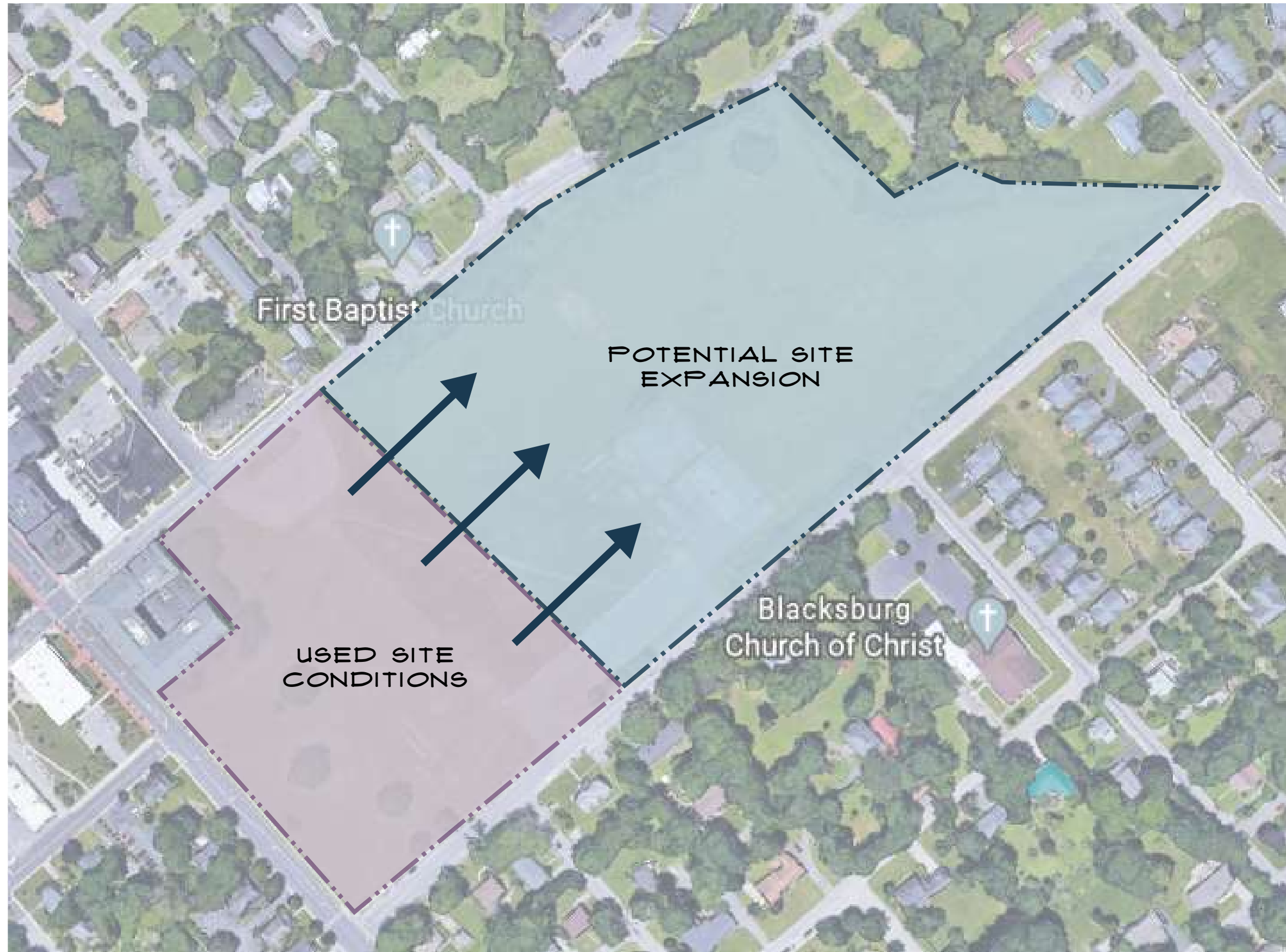


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